CHAPTER 1
PUBLIC REVIEW OF THE DRAFT EIS

Public comments on the Griffith Energy Project (Project) Draft Environmental Impact Statement (EIS) were solicited from agencies, organizations, and individuals. Comments were received at a public hearing hosted by Western Area Power Administration (Western) in Kingman, Arizona, on December 8, 1998, and in writing. This chapter provides a summary of the public review process and specific responses to the substantive comments received. In addition, this chapter includes a summary of changes made to the EIS as a result of new information, preliminary engineering activities and additional agency coordination.

1.1 PUBLIC REVIEW PROCESS

The Draft EIS was filed with the U.S. Environmental Protection Agency (EPA) and released to the public in late October 1998. A *Federal Register* notice of the filing was published by EPA on November 6, 1998 (63 FR 59988) this began the 45-day public review period. Other announcements included Western's Notice of Availability mailed to individuals and organizations on the project mailing list, paid newspaper advertisements and media stories in response to the Notice of Availability. About 150 copies of the Draft EIS were sent to Federal, state and local agencies, organizations and individuals for review and comment.

Western conducted a formal public hearing in Kingman on December 8, 1998. A Federal hearing officer from Western presided over the proceedings, which were recorded by a court reporter. An open house preceded the hearing to provide an opportunity for people to view informational displays and discuss the project with Western and Griffith Energy personnel. A total for 41 people signed the hearing sign-in sheets. Of those, 9 people provided comments and views on the proposed project and the Draft EIS. In addition, 19 letters commenting on the Draft EIS were received from various agencies and the public. The letters contained 155 substantive comments that are addressed in this chapter. The list of parties who provided written comments is listed in **Table 1.1-1**. Copies of the hearing transcript and\or the comment letters are available upon request from Western's Desert Southwest Regional Office in Phoenix, Arizona (see cover sheet for address).

1.2 CHANGES TO THE EIS RESULTING FROM COMMENTS RECEIVED

Western analyzed and considered all comments and responded to those substantive comments that presented new data, questioned findings or raised questions or issues relevant to the potential environmental impacts of the proposed project, as required by NEPA and other regulations. In developing responses to some comments, Western recognized a need to modify the project or conduct additional analysis to respond to the comment. This section summarizes the major changes made to the Project and\or the Draft EIS where changes were needed to be responsive to the comments.

Need for Power

Several comments questioned the need for the proposed Project or how the need for the Project was defined. In response to these comments, Western has amplified the purpose and need section, addressing Western's need to respond to a request for interconnection from entities planning to compete in a deregulated utility market.

Impacts to Grand Canyon Visibility (Regional Haze)

Some commenters questioned the Project's impact on regional haze. In response to these comments, Western has updated the information in the Draft EIS to reflect additional visibility analysis that has been completed as a result of the Arizona Department of Environmental Quality air permitting process. Current modeling results show that the Project would not have significant effects on visibility at the Grand Canyon. Five years of data (1994 through 1998) are currently being modeled and the results will be included in the air permit application to the Arizona Department of Environmental Quality for the Project. The results of this modeling conducted to the time of the issuance of the Final EIS is summarized in Chapter 2 of the Final EIS.

Brine Disposal Pond

Several comments and questions were received about the brine's potential impact to waterfowl, birds of prey and wildlife. A potential does exist that the brine would become toxic over time as more water evaporates from the pond, leading to higher concentrations of the minerals and metals. Griffith Energy has committed to monitor waterfowl use of the pond and coordinate with the Arizona Department of Fish and Game to develop mitigation, if health or mortality problems are observed. In addition, the EIS has been revised to clarify that no waste from the pond would be removed from the power plant (Plant) site.

Impact on Water Resources

Several comments were received about the impact on groundwater resources from the Plant's use of groundwater for cooling. Based on these comments, the EIS has been expanded to include a water balance discussion, information on other cooling alternatives that were considered and a discussion on the Plant's location versus other locations with ample water supply. This information is presented in Chapter 2 of the Final EIS and in selected responses to comments addressing the water resource impacts. Western views the groundwater use for the Project as adverse, but not significant considering the projected life of the project and the quantity of groundwater available.

Impact on Visual Resources

Some comments questioned the visual impacts of the transmission line crossings of Interstate-40 (I-40) and the proposed Griffith-McConnico transmission line near I-40, south of the North Star

Steel Plant. In response to these comments, Western conducted additional visual analysis, including the development of new simulations. The simulations demonstrate that the new transmission line would be visible from I-40. Western explored other alternative routes for proposed Segment D that parallels I-40 south of the Oatman exit. Western did not identify any routes east of the Segment that were feasible from an engineering perspective. Western believes the visual impacts are not significant for Segment D due to the industrial\manufacturing zoning near the proposed route. The simulations are included at the end of Chapter 2 of the Final EIS.

Traditional Cultural Properties

Both EPA and the Hualapai Tribe commented on the importance to factor the results of traditional cultural properties into the EIS. Surveys for traditional cultural properties within the Project study area have been completed. The results have been summarized in Chapter 2 of the Final EIS.

Draft EIS Index

In response to a comment, a Draft EIS Subject Index was developed and included in the Final EIS.

1.3 CHANGES TO THE EIS BASED ON NEW INFORMATION

Based on preliminary engineering activities, Western determined a need to address three new alternatives in the Final EIS. Western has determined that the new alternatives are not substantial changes to the proposal or significant relevant to environmental concerns and, therefore, did not prepare a supplemental Draft EIS. A copy of Western's determination is available upon request. The alternatives are presented in the Final EIS in the event the public and agencies wish to provide additional comments on the new alternatives to be considered in Western’s decision making. The new alternatives are addressed below.

Northern Gas Pipeline Alternative

An alternative route for the proposed natural gas supply pipeline between the Plant site and the Transwestern Gas Company supply line is being considered. This alternative would travel due north from the Plant site either in the county road right-of-way (ROW) located 1/2 mile east of the western boundaries of Township 20N., Range 17W., in Sections 6, 31, 30, and 19 or near this ROW in a separate easement. This route is shown on **Figure 2.2-1**. Since this alternative deals with one complete component of the Project, the alternative is presented in Chapter 3 of the Final EIS.

Temporary Haul Road Alternative

Based on input from the Burlington Northern Santa Fe Railroad, an alternative temporary haul route for the delivery of major, heavy equipment to the Plant site has been developed to better use existing local rail facilities. Under this alternative, instead of building a new temporary area to offload equipment at the rail siding due east of the Plant site, equipment would be offloaded at an existing facility at a truckstop approximately six miles north of the Site (see **Figure 2.2-1a**). This alternative addresses a change to the temporary haul road east of I-40 as proposed in the Draft EIS and is included as inserts in Chapter 2 of the Final EIS.

Transmission Line Structure Alternative

In the Draft EIS, Western proposed to use the same structure type for the Griffith-Peacock 230-kV transmission line that was used for the existing Davis-Prescott transmission line in the portion of the proposed right-of-way (ROW) that parallels the existing Davis-Prescott line. However, based on preliminary engineering activities, Western determined that it does have an existing design to match the same structure type and carry heavier conductors needed for the proposed Griffith-Peacock line. Western determined that additional structure options were needed for the Griffith-Peacock line to meet the design objectives for the Project. In response, Western has added a single pole transmission alternative for the proposed Griffith-Peacock 230-kV transmission line, Segments B and C, where it parallels the existing Davis-Prescott line. The new information in the Final EIS is limited to the results of visual analyses, since the steel lattice structure was proposed to reduce visual intrusion. Environmental impacts from this alternative to other resources would be similar or less than the proposed action. This alternative addresses a change to the proposed Griffith-Peacock line proposal and is addressed as inserts in Chapter 2 of the Final EIS.

TABLE 1.1-1
LIST OF PARTIES WHO PROVIDED WRITTEN COMMENTS

Comment #s	Commenter	Representing
1-7	Kerry Christensen, Ph.D.	Self
8-12	Jack Ehrhardt	C.E.R.B.A.T., Inc.
13-27	Dennis E. Roberts	City of Kingman
28	Unknown	
29-43	Carol S. Anderson	Mohave County Board of Supervisors
44-46	Albert C. Leenhouts	Self
47	James Butcher	Self
48-50	Dean A. Barlow	Self
51-54	Elaine E. Miller	Self
55-62	Bruce Asbjorn	Bureau of Land Management
63-84	Rebecca Peck	Bureau of Land Management
85-90	Paul Hobbs	Bureau of Land Management
91-109	Duane J. Aubuchon	Arizona Game and Fish Department
110-112	Michael Kondelis	Mohave County Public Land Use Committee
113-136	Deanna M. Weiman	United States Environmental Protection Agency - Region IX
137	William J. Burke	National Park Service
138-144	Earl Havatone	Hualapai Nation Office of the Chairman
145-151	Robert L. Arnberger	National Park Service
152-155	Richard Beebe	Self

1.4 EIS COMMENTS AND RESPONSES

The comments and responses are organized by commenter, then comment number, as described in Table 1.1-1. Comment numbers are for comment letters received and comment letters (e.g., "A") correlate with comments received at the public hearing.

COMMENTER	ORGANIZATION	CITY/STATE
Kerry Christensen, Ph.D.		Kingman, AZ

No.	Comment	Response
1.	This letter is to provide comments on the Draft Environmental Impact Statement for the Griffith Energy Project in northwestern Arizona. In general, myself, my family, my friends and, I believe, the majority of Mohave County are not interested in degrading our environment for the profit of Griffith Energy Limited Liability Corporation (Griffith). Just look to their name to understand their feeling toward protection of the environment; Limited Liability. My children's air, water and environmental aesthetics are worth far more than a few jobs in Mohave County.	Your comment has been noted.
2.	We feel that the emissions from the power plant has the potential to negatively impact Mohave County's economic security by increasing regional haze entering Grand Canyon. We feel that the emissions from the plant will reduce the beauty and attraction of Grand Canyon and therefore reduce our tourism potential. The U.S. Government just spent untold millions of dollars to study air quality in Grand Canyon (Grand Canyon Visibility Transport Commission) and concluded that there is a significant negative effect of regional haze on the public's Grand Canyon experience. Why should we allow Griffith to make it worse? Our air quality is already affected enough from the Mohave generating station in Laughlin, Nevada. Enough electricity is already being generated without creating another source of pollution.	A more detailed analysis of potential impacts from the Griffith Energy Project to the regional haze entering the Grand Canyon has been completed. Please see Comment Number 151. The purpose of the Griffith Energy Project is not to fill an identified need for additional power. Instead, it is intended to provide an economical and efficient source of power that could be used to meet either current or future market demands for wholesale energy in the deregulated energy market being developed in response to federal and state mandates. Even though the demand for electricity is expected to continue to increase over time according to the Western System Coordinating Council and other industry and government projections, the Griffith Project is not dependent on any such growth. Please see the Purpose and Need addendum in Chapter 2.
3.	Furthermore, we feel that consumption of 3,300 gallons of water per minute will negatively affect springs and water supplies to Mohave County. How long can you pump that much water before northwestern Arizona goes dry? For God's sake, this is a desert!	A water balance analysis of the Golden Valley sub-basin of the Sacramento ground water basin has been prepared and is included as an addendum to the Draft EIS in Chapter 2 of the Final EIS.

No.	Comment	Response
4.	We also feel that the proposed brine pond, which has the potential to reach toxic levels, is too hazardous to wildlife and the citizens of Mohave County. How will they dispose of toxic waste? Will it be transported by train right through the cities and towns of Mohave County?	The discussions on pages S-6, S-8, 2-32, 2-34, 4-10, and 4-28 of the Draft EIS refer to metals concentrations and are correct. Concentrations of salts and metals in the brine disposal pond are expected to increase over time as the water in the pond evaporates and levels of metals could possibly reach toxic levels. A separate discussion on page 4-28 is also correct; the brine pond total dissolved solids or salt content is expected to be less than sea water, so salt build-up is not expected to be a source of toxicity to wildlife. Also see response to Comment 13. As stated on page 4-10 of the Draft EIS, both the entire plant site and the brine pond are to be fenced to control both human and wildlife surface access. Griffith Energy will consult with Arizona Game and Fish Department (AGFD) in the selection and construction of a fence to enclose the brine pond which will minimize passage of wildlife species of concern. An additional mitigation measure has been added outlining Griffith's commitment to monitor water fowl use of the pond and coordinate with AGFD to develop appropriate mitigation if health or mortality problems are observed.
5.	Many species that are important to myself and the general public such as the Bald Eagle, waterfowl, Golden Eagles and various hawks are known to inhabit or migrate through the project area. We know that individuals of these species will be lost at the pond and also due to collisions with power lines. These losses are unacceptable to myself and many others.	The comment has been noted. Please see page 4-30 paragraph one of the Draft EIS. If problem areas of avian collisions with the new line are documented, Western would consult with the Bureau of Land Management, Fish and Wildlife Service and AGFD to identify potential mitigation measures to reduce or eliminate this impact. However, the potential for collisions would be minor based on the fact that the new line in Segments B and C would be placed in the same plane as the existing line thus increasing the visibility of the line to birds. Segment A, B and D or E would traverse areas that currently do not have transmission lines. Therefore, their presence would increase the potential for avian collisions. However, these new lines are not anticipated to have greater collision potential than the minimum potential represented by other similar lines in the area.

No.	Comment	Response
6.	Before massive developments in Las Vegas, Phoenix and other cities in the west, northwestern Arizona had some of the most spectacular scenery and vistas in the world. With development came eyesores such as transmission lines. Northwestern Arizona, in general, is overcrowded with transmission lines. **We don't want any more!** Our lands have been scarred enough. We do not believe that the need is great enough to justify more transmission lines.	Your comment has been noted.
7.	We do believe, however, that the true purpose and need of the project is for the project proponents to make a profit while they degrade our environment. **We don't need it!** Finally, we feel that this issue should be left to the decision of the public. Let us vote whether we want this polluting white elephant or not. Let us vote on whether we want our property taxes to increase to pay for the infrastructure that Mohave County has supposedly committed to ($5 million we believe). Even one of the three County Supervisors does not want the project (Ms. Carol Anderson), and we feel she is the most enlightened member of that board. Give us a voice or give us our environment!	Your comment has been noted.

COMMENTER	ORGANIZATION	CITY/STATE
Jack Ehrhardt	C.E.R.B.A.T. Inc.	Kingman, AZ

No.	Comment	Response
8.	The comments I would like to put on record regarding this gas-fired plant are this. I wholeheartedly object and protest this plant being built and allowed to operate, producing about 1900 tons of emissions a year. Reasons are that clean, renewable, green energy is available and your organization and the Mohave County Economic Authority have not made an attempt to bring this energy option to the citizens of Mohave County.	In a deregulated utility environment, market forces will dictate the type of generation developed. Today's market indicates that there is ample demand for low cost power. The technology proposed for the Griffith Energy Project is the most cost effective and efficient power technology available. Based on a recent Bonneville Power Administration Market Study, the levelized power costs are projected to be about 2.1 cents per kilowatt for a combined-cycle combustion turbine, 5.0 cents for a wind farm, and 8.2 cents for central station photovoltaic power plant. However, even with higher power costs, some marketers have began efforts to market renewable-based generation, which has led to the development of wind farms. As a result of AB 1890, California businesses, residents and all public entities have had the ability to choose from whom they buy their electricity since April 1998. A number of companies now offer electricity from renewable electricity generation -- including cleaner power sources such solar, wind, geothermal, biomass, and small hydroelectric sources. In the deregulated market, consumer preference will ultimately dictate the type of generation developed and marketed. Also, see response to Comment No. 12.
9.	Based on commitments made by global governments at the International Kyoto Climate Summit we are to reduce our CO_2 emissions to levels far less than we are producing in this county today. The United States, with less than 5% of the world's population, uses one-third of the world's resources and causes almost half of its industrial pollution. Approving another polluting power plant in Mohave County has a negative effect on our ecosystem and contributes to the present unjust and inequitable social attitude we portray to other communities that we demand do not create pollution.	Your comment has been noted.

No.	Comment	Response
10.	Because our citizens' voices are not allowed to be a significant force in the bringing of business that are invited to come here, we are not allowed to be a community that can be energy sustainable and responsibly humane in our energy pollution production. Our county government funded economic authority, which is not required to give any disclose of its costs or businesses it is soliciting to come to our county, has a history of bringing polluting industry. That includes a steel mill that was in violation of the clean air act for years, costing the taxpayers thousands of dollars in compliance reviews, and trying to bring waste incinerators that would have California's waste shipped here to be incinerated, creating horrific emissions. The pilot plant, given a variance by the state under pressure from influential county representatives, was shut down for having poisonous emissions by the U.S. Environmental Protection Agency and responsible citizen watchdog effort. Point being the same group promoting the Griffith Power Plant, and the same ADEQ representative who ineptly approved a waiver from the air quality permit process for a waste incinerator are promoting this plant as environmentally acceptable.	Your comment has been noted.
11.	The tradeoffs for the positive side do not exist. When ADEQ representative Prabhat Bhargave states this plant "a very well-controlled facility" in terms of the emission control devices, it means absolutely nothing, or worse. He has stated a federal shut down waste incinerator was state-of-the-art.	Your comment has been noted.

No.	Comment	Response
12.	Truly the natural resources this power plant will effect - the air we breathe (putting 20,000 tons of pollution into our air over ten years), and depleting our ground water while creating wealth for the Griffith Power Plant stockholders -- is unacceptable to many of us. I question your authority to do these things to us without giving our community the option to have clean, renewable energy plants brought here (i.e., solar, wind...), and not allowing us to be globally responsible to the reduction of CO_2 emissions as agreed to at the Kyoto Climate Summit. These natural resources belong to all of us, including the majority of the citizens who are at poverty level in our county. It is not okay to pacify them with a plethora of prefabricated benefits to us! I would appreciate you addressing these concerns, and not act as if we do not know the influence global corporations dominance has over the majority of people and their environment.	Because the purpose of this plant is to provide an economic and efficient source of energy in response to the deregulated energy market, more costly and inefficient sources of energy (such as solar and wind) were not considered as alternatives to this project. Therefore, the impacts associated with these forms of energy, which are different but not necessarily less than the proposed technology, were not evaluated. However, most states are requiring a certain amount of renewable energy to be included in the deregulated market through subsidies funded at least in part by consumers. The Draft EIS contains a discussion on the project's potential effect on global warming in Section 4.3.2.1.4 which indicates that there would be a likely net positive effect from this and other similar gas-fired power plants.

COMMENTER	ORGANIZATION	CITY/STATE
Dennis E. Roberts	City of Kingman	Kingman, AZ

13.	Sec. 2.1.1.2.1 - Page 2-4 - 2nd paragraph: How frequently do the brine disposal ponds have to be drained and the solids removed? How are the solids disposed of? (Also applies to Sec. 4.2.2.1.1 - Page 4-7 top of page).	Operation of the Brine Disposal Pond is not expected to involve the removal of brine or precipitates. The site would act as an evaporation pond. The pond is designed for a 20-year life at maximum power production which is defined as operating at maximum capacity (650 MW), 24 hours/day, 365 days/year. The design also includes adequate volume to contain the 100-year 24-hour storm and precipitates which build up over time. Since the plant will not operate at the maximum but at varying rates throughout the year, the current design is expected to be adequate for the average water use expected for the 40-year life of the plant. In the event that additional brine storage is required to sustain the plant's operations, another impoundment cell will be built to provide the needed capacity.. At closure, the pond would be capped with a geosynthetic liner and 4 feet of plant growth medium. No materials will be shipped offsite; therefore, pond operations would not produce a health risk to the community from transportation of wastes.

No.	Comment	Response
14.	Sec. 2.1.1.2.2 - Page 2-4 - 3rd paragraph: It is indicated that access to the tap and metering facility on the EPNGC pipeline would be via Walnut Creek Road. Are there plans to improve and signalize the at-grade railroad crossing?	Currently, there are no plans to improve and signalize the at-grade railroad of the Walnut Creek Road. Following a 1-2 month period of facility construction where the daily crossing of the railroad by several construction-related vehicles is anticipated, crossings by vehicles associated with facility operations would be limited to 1-2 vehicles per day on average. This small increase in traffic would not warrant changes at the crossing.
15.	Table 2.1-4 - Page 2-20 - item 11: Who are the monitoring studies shared with?	The monitoring studies on effects of audible noise and electrostatic and electric magnetic fields are normally published upon completion. The results will be shared with any interested part upon request.
16.	Sec. 3.1 - Page 3-2 - Geologic Hazards - The Arizona Earthquake Information Center at Northern Arizona University has published Earthquake Hazard Evaluation Mohave County Arizona - July 30, 1997.	The referenced document has been reviewed and information added to the EIS. See addendum for Section 3.1.
17.	Sec. 3.11 - Socioeconomics - page 3-58 - It is questionable whether Mohave County as whole should be used as the study area - as the true impacts of the project are to the Golden Valley and Greater Kingman areas.	The socioeconomic analysis study area included data for Mohave County as the overall political jurisdiction in which the project is located, and baseline data was also provided for the City of Kingman. Information for other areas of the County, such as Bullhead City, Colorado City, and Lake Havasu was not included. County and city-wide information is the typical level for socioeconomic data, and therefore is generally used for estimating more localized social and economic impacts. The socioeconomic impact analysis focuses on the Kingman area and the I-40 industrial corridor in Golden Valley. The socioeconomic impact assessment, beginning on page 4-53 of the Draft EIS, identifies anticipated employment, housing, and utility and service impacts projected to occur in the project-specific Kingman and Golden Valley region.

No.	Comment	Response
18.	Sec. 3.11 - Socioeconomics - page 3-67 - Urban/Domestic Water: The withdrawal of up to 122,560 acre feet of ground water over the 40 year life of the plant is of concern. It should be noted that the City of Kingman owns 44 well sites in Townships 19 & 20, Range 18 West. While the City of Kingman currently has not developed any of these well sites, the Sacramento Basin Aquifer continues to be considered as a secondary water resource for the Kingman Municipal Water System. (Also applies to Sec. 4.2.2.1.1) In general, it is questionable whether or not any operation requiring high quantities of water should be developed in an area totally dependant upon ground water.	Information on the City of Kingman's well sites in the Sacramento Basin has been added to the discussion in Section 3.11 and is included in Chapter 2. See response for Comment No. 3.
19.	Table 3.11-12 - Page 3-67: Kingman's Groundwater/well capacity is currently at 15.2 MGD; and currently there is a new Storage Tank under construction that will raise capacity to 9.9 million gallons.	Table 3.11-12 has been revised to reflect information presented in the comment. See Chapter 2 of the Final EIS.
20.	Table 3.11-13 - Page 3-67: This describes Kingman's Hilltop Wastewater Treatment Facility. There is a 2nd facility located in Section 26, Township 21 North, Range 17 West. This 2nd facility is an aeration lagoon facility having a design capacity of .53 MGD and is currently operating at about 75% capacity.	Table 3.11-13 has been revised to include the second wastewater treatment facility. See Chapter 2 of the Final EIS.
21.	Sec. 4.2.2.1 - page 4-6 - next to last paragraph: it is stated that subsidence from dewatering is not expected due to the depth of the existing water table. With a decrease of the water table by an estimated 109.5 feet at the wells - supporting information on how this determination was made should be included in the report.	Additional information has been added regarding subsidence potential. See Chapter 2 of the Final EIS.

No.	Comment	Response
22.	Sec. 4.3.2.1.1 - Regulatory Status/Project Emissions: The release of more than 100 tons per year of nitrogen dioxide, carbon monoxide, and inhalable particulates is of concern. While these releases may be within current limits and BACT, both the short term and long range effects are of concern. Sec. 4.3.2.1.2 indicates compliance with air quality standards have been determined using dispersion modeling. The compounding affects of this project with existing and future facilities will impact air quality in the immediate area. This methodology does not appear to take into account the inversion conditions that exist during the cooler fall and spring months, which are evident around the existing truck stops, North Star Steel, and through out the area along unpaved roadways. A more detailed evaluation and/or discussion of the air quality and visual impacts is warranted. It can be anticipated that the exhaust from the stacks will be visible throughout the Golden Valley and Greater Kingman Area, based on the visibility of the exhaust from the Laughlin Generating Plant and the North Star Steel Facility.	Inversions were incorporated in the air quality analysis. Also, visibility of the emissions from the Griffith Plant would not be similar to those from North Star Steel and the Laughlin Generating Plant. The emissions from the stack would generally not be visible (primarily NO_x and CO) but a steam plume from the cooling towers could be visible periodically. This has been discussed in Section 4.9.2.1 in the Draft EIS. Also, as emissions are converted to ammonium compounds over time and distance, they potentially could contribute to regional haze. This has been evaluated at the most sensitive receptor in the area, the Grand Canyon, and has been discussed in Section 4.3.2.1.3 of the Draft EIS. The regional haze analysis has further been refined and is discussed in Chapter 2 of the Final EIS.
23.	Sec. 4.9.2.1 - Page 4-47 - 1st paragraph: It is indicated that the Plant site would be designed to cause the least visual intrusion. There is no discussion if the State, and County dark sky regulations have been evaluated and how the facility would impact dark sky issues. The 2nd paragraph does not mention the fact that the lighting will be visible from the residential areas of Golden Valley and the City of Kingman. It can be anticipated that this will be the case, as the lights from North Star Steel are visible from these areas.	A description of proposed outdoor lighting fixtures has been added to Section 2.1.1.1 of the EIS. The discussion of potential impacts to result from outdoor lighting in Section 4.9.2.1 (3rd paragraph, last 2 sentences) has been modified to reflect impacts from use of lighting described in Section 2.1.1.1.
24.	Sec. 4.9.2.1 - Page 4-47 - 3rd paragraph: It is stated that the topography south of Kingman would screen the plume from views within residential areas in the city. This is a questionable statement.	There are several butte landforms of approximately 3600 feet in elevation located between one to two miles south and southeast of residential areas in Kingman. These landforms are in the foreground of views from the city and will screen the plume, which will rise from the plant located at an elevation of 2500 feet more than eight miles southeast of the city. The plume would be obscured by distance as well as the rugged topography.

No.	Comment	Response
25.	Sec. 4.10.2.1 - Page 4-55 - 1st paragraph: Revenues are anticipated in excess of $50 million: what are the anticipated public costs to providing service to the facility over that 20-year time frame, i.e., roadway construction/maintenance, public safety, fire/emergency, medical, etc.?	In support of the Griffith Project and other users in the I-40 Industrial Corridor, Mohave County will be providing road improvements and a water supply system. Apache Road will be constructed from the Griffith Interchange to the northwest corner of the Project site. The estimated cost of Apache Road is in the range of $750,000 to $1 million depending on final design criteria. For the Griffith Project, Mohave County will also be providing an unpaved haul road that will built from I-40 to the northwest corner of the Griffith Project Site to provide temporary access for the heavy equipment needed for construction. The cost of this haul road is estimated in the range of $100,000 to $200,000. A water system with production capability of 6000 gpm will be developed and constructed by the County to support water users in the Industrial Corridor. The Griffith Project will subscribe for approximately 80% of the production capacity of the water system. The estimated cost of the water system, assuming 6 wells are developed, is in the range of $3.5 to $4 million. Griffith Energy will supply its own fire protection facilities, therefore no cost for fire protection costs will be borne by Mohave County on behalf of the Project. There are also no additional costs anticipated for medical or other public services as a result of the Griffith Project.
26.	Sec. 4.13.2 - Page 4-68 - 1st paragraph: It is stated that a Hazardous Materials Inventory Statement and Management Plan would be developed and submitted to responding fire departments. As noted in the report, the plant site is not serviced by any fire district/department.	Corrections to Section 4.13.2 are reflected in the **Final EIS Corrections Table**.

No.	Comment	Response
27.	Sec. 4/14.2 - Page 4-70 - The UGA used in this report is Mohave County; the results of which reflect that the proposed project would not have a disproportionately adverse effect on minority and low-income populations. Would this hold true if the UGA were Golden Valley, Yucca, and the Greater Kingman Area, which is the primary impact area?	The purpose of the Unit of Geographical Analysis (UGA) is to provide baseline minority and low income population data *against which* the minority and low-income population data of the affected area, namely Golden Valley, Yucca, and the Greater Kingman Area, is compared. The UGA must be larger than the area impacted, in this case the UGA is Mohave County, otherwise there would be no comparison. One would essentially be comparing the data from the impacted area with data from the impacted area. In such an analysis no disproportionate impacts to low-income and minority populations would ever be identified, even if they did indeed exist.

COMMENTER	ORGANIZATION	CITY/STATE
Anonymous		

No.	Comment	Response
28.	Using that much water is fine but it must be recycled back into the aquifer. Water is too scarce in the desert.	Your comment has been noted.

COMMENTER	ORGANIZATION	CITY/STATE
Carol S. Anderson	Mohave County Board of Supervisors	Kingman, AZ

No.	Comment	Response
29.	I am writing you on behalf of the citizens in Mohave County who have taken the time to contact me with their comments regarding the Environmental Impact Study of the "Griffith Energy Limited Liability Corporation" (Griffith). They are uncomfortable in addressing the Public hearing and/or feel that publicly stating their concerns may jeopardize their jobs or businesses in the area. I apologize for the anonymity these people have requested. I have enclosed copies of phone messages and letters that I have received or those who agreed that I do so.	Your comment has been noted.

No.	Comment	Response
30.	I apologize to you for the format I am using, in that it is not the same as what was offered at the EIS Public Hearing, 12/8/98, in Kingman. This format is the best way for me to incorporate their comments. I ask that you take the information presented herein as seriously as you would what is submitted on your forms.	Western has reviewed the comments provided. The comments consist of copies of letters, telephone records, and E-mails provided to Mohave County Supervisors Anderson and Johnson. Most of the comments are dated before the Draft EIS was issued in October 1998. The comments express Mohave County constituents' views on the proposed Griffith Energy Project. Western believes the views are consistent with the issues raised during the scoping process held for the EIS. In cases where a constituent has offered specific comments on the EIS, Western has addressed and responded to the comment. All the comments provided have been noted and will be taken into consideration in Western's decision making.
31.	The study just covered the actual projected use for the Griffith project. It did not take into account the current users pumping from that aquifer, nor the potential users for that area. For example, a cement fabrication facility is interested in locating their new plant on the adjacent property to Griffith. Their water use was not calculated in the impact to the aquifer, along with Griffith. Additionally, Mohave County recently rezoned that area, the adjacent area of approximately 10 sections of land and southwesterly on Interstate 40, as “Industrial”. There were no “qualifiers” put on that Industrial zone regarding water usage of prospective industries, nor were any environmental issues placed as guidelines in that rezone. Those prospective industries could have additional impacts on this same aquifer and land. These potential impacts are part of the whole picture and should be identified as possible impacts on the aquifer.	The Council on Environmental Quality guidelines for analyzing cumulative impacts require that “past, present, and reasonably foreseeable actions” be considered. The Draft EIS did address other water users (past, present and future) in the Sacramento Basin. Past and present water users were included in the baseline conditions described in Section 3.2.1.1.1 of the Draft EIS and were used as the existing conditions against which the impacts of the project were assessed in Section 4.2.2.1.1 of the Draft EIS. The cumulative effect of adding other water users in the future as a result of future development of the I-40 Industrial Corridor and other uses is discussed in Section 4.16 of the Draft EIS. While some potential projects in the area are currently being discussed (such as the prison), plans for them have not been finalized (i.e. plans or permit applications have not been filed). Therefore, the likelihood for them to proceed and the quantification of their potential effects are not reasonable to assess beyond the level described in the Draft EIS.
32.	Additionally, a recent radio newscast reported that an area property owner is still negotiating the sale of this land for a private prison that could house up to 1,000 or more prisoners. The anticipated water use could be 3,000 acre feet per year. This water use is over and above Griffith’s projected pumpage.	See response to Comment No. 31.

No.	Comment	Response
33.	The aquifer is reported to "recharge" at 3,000 acre feet per year. That is the projected amount to be used by Griffith. This does not take into account the above issues. Therefore, over time, this aquifer could see "overdraft", land subsidence and negative impacts to endangered or threatened species.	See response to Comment No. 3.
34.	With this information, why hasn't Griffith looked at a site closer to the Colorado River and its more available "renewable" supply? Shouldn't this also be considered in the EIS?	Using water from the Colorado River for the Griffith Project at its current site was not considered viable for the reasons outlined in Section 2.2.1.2 of the Draft EIS describing alternatives considered but dropped. The reasons other power plant sites were not considered viable are also outlined in Section 2.2.1.2 of the Draft EIS. Sites closer to the Colorado River specifically were not considered for two primary reasons: 1) any location nearer the river would also be closer to either the Grand Canyon or Lake Mead National Recreation Area, and 2) siting outside the Kingman area would not provide the secondary benefits to the local transmission system.

No.	Comment	Response
35.	I appreciate the recycling of water, to reduce the withdrawal from the aquifer. I also understand that the retention ponds for this water will be lined with a liner that will prevent any leakage, or seepage into the underground aquifer, at least for the life of the plant. Comments at the Public Hearing addressed the wildlife and fowl that may be attracted to this "artificial" water source, considering the scarcity of water in that desert area. There were questions as to what effect the contact or ingestion of this water and its residue from the Griffith process would have on these animals. They called it "chemical soup"? Will these ponds be fully fenced and covered to prevent wildlife, fowl, and humans from access to this "chemical soup"? I also understand from conversation with Griffith representatives that this water, and whatever settles out such as a "sludge," will remain in these ponds for the life of the plant and will then be covered over, leaving all these chemicals in place. What will then happen with the liner.... will it forever stay intact, not allowing this "chemical soup" to leak and contaminate the underground aquifer? There were also questions raised about earthquakes, especially with the known history of the effects of earthquakes in our area, on both these retention ponds and/or the aquifer.	Your comments have been noted. See responses to Comments No. 4 and No. 13. A description of the proposed brine pond's construction and operations is provided. See modification in Section 2.1.1.2.1 of the Final EIS. The potential effect of an earthquake on the valley aquifer is unknown. This plant has a 40-year projected life. In the event that additional brine storage is required to maintain operations, Griffith would build a second pond to the regulatory standards at the time it is constructed. Section 3.1 indicates that the site lies within a seismic risk zone of 2, with moderate damage projected in association with the maximum earthquakes which could occur. There are no known faults underlying the Griffith facility. The largest recorded earthquake within a 200 km radius occurred 176 km to the west and had a magnitude of 6.1 on the Richter scale. These risks would not pose a threat to the integrity of the Brine Disposal Pond liner. Wave action associated with a seismic event will be contained by the freeboard, or the extra space available between the maximum water level and the crest of the embankment. The pond is designed for a 20-year life at maximum power production which is defined as operating at maximum capacity (650 MW), 24 hours/day, 365 days/year. The design also includes adequate volume to contain, the 100-year 24-hour storm and precipitates which build up over time. Since the plant will not operate at the maximum but at varying rates throughout the year, the current design is expected to be adequate for the average water use expected for the 40-year life of the plant. In the event that additional brine storage is required to sustain the plant's operations, another impoundment cell will be built to provide the needed capacity.
36.	I have received comments/questions about the loss of our dark night sky and light pollution. We are seeing a loss of our night sky and visibility of stars with the light pollution from North Star Steel's plant, as well as that from Laughlin, Nevada. Will this plant add to that light pollution with their night time lights?	See response to Comment No. 23.

No.	Comment	Response
37.	An area resident, Mr. M.K. Graham has a background of the types of engines for the industry which will be used at Griffith. He is concerned about the possibility of engine failure and air contamination. The winds are primarily from the southwest, and blow toward Kingman. (Our area trees prove this fact.) What effect will be had on Kingman and the nearer neighbors in this event? The same concerns are asked about the emissions from the plant, under any other type of accident.	Please refer to Figure 3.3-1 of the Draft EIS for a graphic depiction of the wind speed and direction at the Griffith Power Plant site. Because of differences in surrounding topography, the prevailing winds at the Plant Site would be different than at Kingman - predominantly from the northwest and the south-southeast. For a discussion of the air emissions associated with an emergency plant shut-down, see the addenda to Section 4.3.2.1 in Chapter 2 of the Final EIS.
38.	We see the effect of our already threatened clean air with the pollution from Los Angeles, and a small part from the Mohave Generating Station which provide molecules for other pollutants to attach to. Would these emissions provide more of the same?	The emissions from the Griffith Project would be very different from the Mojave Plant. The Griffith power plant would burn natural gas, Mohave burns coal.
39.	Residents who have moved here for the clean, clear sky feel that this is threatened by adding anything more to the atmosphere.	Your comment has been noted.
40.	There will be visual impacts, interruption of radio (and cell phones?) reception and transmission, etc. These concerns are also important to area residents.	Additional visual analysis has been conducted based on this and other comments. The results of the analysis are presented in the Addenda section in Chapter 2. The visual impacts would not be significant based on the analysis. Radio reception and transmission impacts were addressed in Section 4.15 of the Draft EIS. Effects to radio reception and transmission will be confined to existing and proposed rights-of-way. Any problems encountered within or adjacent to the rights-of-way would be addressed and corrected by Western. Transmission line electric and magnetic fields do not affect cellular phone transmission and reception.
41.	You will notice that many of the comments in favor are from areas that will be affected by the Griffith site. I ask that you seriously consider those who will be directly affected by this site. They are the ones who have the most at stake. To quote Dean Barlow from Lake Havasu City, “Don’t trade quality of life for a few jobs.”	Your comment has been noted.
42.	Another individual, Frank Poulia (sp?), was concerned about the loss of 65 acres of habitat with no way to measure the loss of wildlife at this time nor the effect of this loss in the future.	Your comment has been noted.

No.	Comment	Response
43.	Why not put our efforts into more environmentally friendly power generation, such as wind or solar, is another question I have been asked by quite a few people.	See response to Comment No. 8.

COMMENTER	ORGANIZATION	CITY/STATE
Albert C. Leenhouts		Kingman, AZ

44.	I would like to express to you two major concerns about the proposed Griffith Power Plant project. **The first is the projected water use.** My estimate is that when this plant runs at capacity, it will use up to 2450 gallons per minute, or just over 3.5 million gallons per day. This estimate is based on the following: The 1500 MW Laughlin plant, running at capacity, uses, in the summer months, 17000 gallons per minute for evaporative cooling. The proposed Griffith plant is rated at 650 MW (Approximately 10 times the amount used in the City of Kingman), and should use proportionately less. In addition, this plant will use hybrid gas turbine/steam technology, and therefore the water use is significantly reduced, possibly by as much as 2/3. But that still comes to 3.5 million gallons per day!	Your comment has been noted.
45.	That is similar to the total residential water use in the city of Kingman! We should not permit a tax break for this; instead, a tax surcharge appears to be in order. **The second concern is the proposed location.** At the Griffith Exit on Interstate 40 is the Praxair plant that manufactures a highly toxic industrial gas. Serious industrial accidents do happen (Henderson, 1988), and terrorist activity is a reality. Human decency requires that, in the case of a major accident at this plant, the people working in the surrounding area should have at least 5 minutes to evacuate, and have the necessary escape routes available - certainly not the Griffith exit! At a windspeed of 25 miles per hour 5 minutes amounts to just over 2 miles. No major facility should therefore be constructed within 2 miles of the Griffith exit.	See the addendum to the Health and Safety discussion in Section 4.13.2 - Occupational Safety and Health.

No.	Comment	Response
46.	In the current ethical climate - and I am not sure that today is different from any other period in history - all corporations will conceal and twist information when large amounts of money are involved. Most will lie, at one time or another. Combine this with Mr. Van Brunt's irrational obsession with rapid industrial growth, and you have a situation where you can make a positive difference. I sincerely hope that you will.	Your comment has been noted.

COMMENTER	ORGANIZATION	CITY/STATE
James Butcher		Lake Havasu City, AZ

47.	The two 230-kV Transmission lines proposed by WAPA would cross Route 40, one continuing northeast connecting to the Mead-Liberty Transmission lines and the other turning north paralleling Route 40 for over 3 miles and connecting to the McConnico Substation. The visual effects of these power lines obscure the mountains and natural beauty of our area to Tourist and potential companies that may move or expand there facilities to our Industrial Corridor.	The impact analysis for this segment of the proposed transmission line was evaluated from additional Key Observation Points (KOPs) in response to Comment No. 62.

COMMENTER	ORGANIZATION	CITY/STATE
Dean A. Barlow		Lake Havasu City, AZ

No.	Comment	Response
48.	According to the EIS, the proposed plant will consume between 3 and 5 thousand acre feet of ground water per year. The result will be a drop in the water table of 109 feet over 40 years or 2.7 feet per year. The EIS would appear to dismiss this loss as a minor item. The fact that the water table will be drawn down over time is evidence to me that we are talking about a non-renewable resource. Where are the 4 thousand acre feet of recharge water to come from? Certainly not the 7 to 12 inches of rainfall this area gets per year. If this project were to be built on the banks of the Colorado River, and the company were to take 3-5 thousand acre feet of water directly from the river for private use, there would be strong opposition from every state and community along the river. How is this any different from keeping 3-5 thousand acre feet from getting to the river?	The Griffith power plant would consume 212,920 acre feet maximum over its 40-year lifetime through the operation of this power plant from an aquifer which is conservatively predicted to have storage of 2.3 million acre feet above 1,200 feet below the land surface (ADWR 1994). Recharge is expected to be 0.16 million acre feet during that period. Therefore, this power plant will consume 8.7 percent of the Sacramento aquifer over the plant lifetime. The Colorado River below Davis Dam drains a watershed of 173,000 square miles, and during the 1997 Water Year, 9,931,000 acre-feet passed USGS gaging station 09423000. Planned maximum consumption from this power plant of 5,323 acre-feet per year is 0.05 percent of the discharge above Yucca, and within seasonal variability of water runoff from one year to the next. Also, see the water balance addendum in Chapter 2 of the Final EIS.
49.	It would appear to me that this project is in direct opposition to the stated policy of the United States, as often expressed by Vice President Gore. Our national goal is to reduce the amount of greenhouse gases and other pollutants being dumped into the atmosphere of the earth. Griffith will add yet another 119 tons of pollution to an already serious air quality problem. The company appears to dismiss this as nothing more than a minor local situation, yet we know that pollution generated in China is appearing in Seattle.	Your comment has been noted.
50.	In closing, I do not believe the environmental costs associated with this project are worth the short term employment benefits associated with its construction and operation. Advocates of the project would appear to consider only the short-term local benefits. I strongly urge you to consider the larger picture and deny the pending permit.	Your comment has been noted.

COMMENTER	ORGANIZATION	CITY/STATE
Elaine E. Miller		Golden Valley, AZ

No.	Comment	Response
51.	I am against the Griffith Energy Project in its current projections. I do not agree with the proposal for our county to supply 5 Million Dollars in supporting infrastructure. That is Corporate Welfare. My research and experience show that the promises of job prosperity never come through and the community is left deeply in debt.	Your comment has been noted.
52.	These types of arrangements have caused damage and destruction to the environment and the natural resources all throughout the East and Midwest. The water is a major concern. I have lived in Golden Valley since 1982 and I know that the Sacramento Aquifer level has been dropping every year. The shape of our aquifer is also a concern. It is funnel-shaped which means that as more and more water is pumped out, the volume of available water reduces drastically with the lower water level. I believe that the project will use more water than anticipated. Our desert summer heat and dry conditions combined with the heat generated by the jet engines will no doubt result in higher consumption of water than stated in the plan. An “Industrial Hub” will seriously jeopardize the water supply for future “family” growth in greater Golden Valley. I have enclosed a copy of an article that ran in our newspaper recently. It clearly states the damage done by excessive pumping of ground water.	Water consumption in the Sacramento Valley aquifer has been impacted by domestic and industrial use. The Arizona Department of Water Resources (ADWR) reviewed water use in the basin in 1994 and looked at projected use over the next 40 years. At the time, existing and projected use was inadequate to establish an Active Management Area for the aquifer. The projected average consumption by the power plant is 3,064 acre feet per year, and is less than ADWR's total projected use of 3,240 acre-feet per year in 2040. The water balance for this plant has been engineered and has gone through extensive review. The projected average and maximum water consumption rates under multiple temperature scenarios has been the object of intense quality control and assurance.
53.	The emissions from the plant may be touted as “one of the cleanest around” but they still are above the EPA standards. The prevailing winds in our area will blow these emissions right through Golden Valley and into Kingman.	Section 4.3.2.1.2 of the Draft EIS shows that the project does not exceed the applicable air quality standards. Also, see Figure 3.2-1 for a graphic representation of the prevailing winds in the area.

No.	Comment	Response
54.	The sacrifices that we will have to face in our environment and lifestyle do not justify the establishment of the Griffith Energy Project. Judging from letter and articles I have read in our local papers there are a great many residents who share the same opinion. I support Carol Anderson and Joe Hart in their suspicions on the validity of such an expensive and marginally supposed necessary project. Bottom line, what we see happening is Profit taking precedence over environment. Private business wants to exploit our natural resources and to let this happen is short-sighted and irresponsible.	Your comment has been noted.

COMMENTER	ORGANIZATION	CITY/STATE
Bruce Asbjorn	Bureau of Land Management	Kingman, AZ

55.	*Page S-9, Land Use and Recreation* - This table is supposed to summarize impacts. The statement "No significant recreation use of public or private lands," does not reflect an impact. It appears under both the Proposed Action and Alternatives columns. Perhaps it would be more appropriate to state that there is no significant <u>impact to</u> recreation uses. *Page 2-35, Land Use and Recreation* - See above comment for Page S-9.	Corrections to the Land Use and Recreation section of Section 2.5 Comparison of Alternatives (p. 2-35) and Environmental Consequences table in the Summary (p. S-9) are reflected in the **Final EIS Corrections Table**.
56.	*Page 2-35 and 36*, Visual Resources - I do not see any assessment of impact created by the installation of the gas pipeline.	A separate analysis for the pipeline has been prepared in response to Comment No. 64 and is included as an appendix. A summary of this assessment has been added to the table in Section 2.5 - Comparison of Alternatives. - of the appendix.
57.	*Page 3-46, paragraph 1* - The Term "off-road vehicle (ORV) is an outdated term, for BLM anyway. It is now referred to as "Off-Highway Vehicle (OHV)" use. Please do a global search in the document and make changes.	Corrections to Sections 3.8 Land Use, 3.9 Recreation, 4.8 Land Use and Recreation, and 4.18 Irreversible and Irretrievable Commitment of Resources are reflected in the **Final EIS Corrections Table**.
58.	*Page 3-51, paragraph 5* - I believe that Segment Z crosses more like 6 or 7 miles of the ACEC, and is adjacent to Mount Nutt Wilderness for only about 2 miles. Page 3-54, paragraph 2 - see comment above for page 3-51.	The correction to Section 3.8.2.6 is reflected in the **Final EIS Corrections Table**.

No.	Comment	Response
59.	*Page 3-54, Visual Resources* - I would like to see a map included in the document showing VRM classes.	A map showing VRM classes has been added in the Final EIS.
60.	*Page 3-58, paragraph 2* - The Black Mountain West scenic overlook was determined to be infeasible, so will not be built. It does not need to be mentioned in this section.	Your comment has been noted and the correction to Section 3.10.2.6 is reflected in the **Final EIS Corrections Table.**
61.	*Page 4-43, paragraph 6, and page 4-44, paragraph 4.* Please remove the word "significant" when describing recreation use of the land. I don't know how much recreation use is considered significant. Actually, a considerable amount of recreation use does occur, especially in the vicinity of Segments B and C. This use includes mountain biking and hiking, as well as hunting and OHV use.	Your comments have been 1) addressed in a modification to Section 4.8.2.2.1 of the Draft EIS (page 43, paragraph 6), and 2) reflected in a correction to Section 4.8.2.2.2 (page 4-44, paragraph 4, line 1) listed in the **Final EIS Corrections Table**.
62.	Visual Resources - 1. Please include the completed Visual Resources Contrast Rating worksheets as an appendix to the document. 2. Please include the Photo Simulations from KOPs 6 and 7 in the document. 3. There are two different things labeled "Figure 4.9-6"--one is the map showing the KOP locations, the other is a photo simulation of KOP 6. 4. Referring to Figure 4.9-l (the map of KOP locations): -please add the locations of KOPs 6 and 7 to the map. 4. Referring to Figure 4.9-6 (the visual simulation for KOP 6): -the title at the lower right corner is incorrect. It should read "Photo Simulation from KOP 6". -the second sentence under the middle photo is difficult to understand. -the lattice towers in the lower left corner are disproportionate to the creosote bushes below them. Those bushes are probably only 6-8 feet high. 4. Referring to Figure 4.9-8: The lattice towers depicted in the lower photo appear to be too brightly shaded. I feel they should be toned down.	Modifications have been made as recommended. 1. The Visual Resources Contrast Rating worksheets have been completed and are included as an appendix to the Final EIS. 2. The Photo Simulations from KOPs 6 and 7 have been completed and are included in the Final EIS. 3. The map showing the KOP locations has been re-labeled Figure 4.9-9 and the locations of the new KOPs (6 and 7) have been added. The visual simulation from KOP 6 is Figure 4.9-6. The visual simulations from KOP 7 are Figures 4.9-7 (single shaft steel structures) and 4.9-8 (steel lattice structures). 4. The title at the lower right corner of the visual simulation for KOP 6 has been revised to read "Photo Simulation from KOP 6". The second sentence under the middle photo was revised to read "The corner pole is located east of the railroad out of the range of the photo." The lattice towers in the lower left corner were revised to appear more proportionate to the creosote bushes. The lattice towers would range from 80 to 120 feet in height, and so would be 10 to 20 times greater in height than the 6 - 8 foot bushes. The lattice towers depicted in the simulation for KOP 6 have been made less bright.

COMMENTER	ORGANIZATION	CITY/STATE
Rebecca Peck	Bureau of Land Management	Kingman, AZ

No.	Comment	Response
63.	Pg. S-7, Wildlife; The reference to voles should be removed. There are no voles in the project vicinity. Impacts to desert tortoise should be referenced here.	Corrections to Sections 2.5 Comparison of Alternatives table and Environmental Consequences table in the Summary are reflected the **Final EIS Corrections Table**.
64.	Pg. ii 3.1.2: Because the proposed pipeline will be new disturbance that occurs primarily on public land, the area where the proposed pipeline will traverse should be analyzed separately from the "Power Plant and Associated Facilities".	Separate sections for the portion of the east-west pipeline on BLM land have been prepared and are included as an Appendix to the Final EIS.
65.	Pg. 2-23 #8 Surface disturbance activities should also be limited to special-status species habitat as well.	The correction to Table 2.1-4 is reflected in the **Final EIS Corrections Table.**
66.	Pg 2-33, Wildlife; The reference to voles should be removed. There are no voles in the project vicinity. Impacts to desert tortoise should be referenced here.	See response to Comment 63.
67.	Pg. 3-23; Mohave mixed grass: "Tobosa" grass should be replaced with "Galleta" grass.	The correction to Table 3.5-1 is reflected in the **Final EIS Corrections Table**.
68.	Pg. 3-28; paragraph 5 I don't believe the "mesquite mouse" occurs in this area. This should be changed to *Peromyscus eremicus*, the cactus mouse. The spotted bat is also known from the Sonoran habitat type. Probably a more representative species for this area is the Merriam's kangaroo rat, *Dipodomys merriami*.	Corrections to Section 3.6 Wildlife on page 3-28 are reflected in the **Final EIS Corrections Table**.

No.	Comment	Response
69.	Pg. 3-29 Special Status Species The listed population of the Mohave desert tortoise is found north and west of the Colorado River. Tortoises east and south of the river are not listed by the Federal government and are called Sonoran desert tortoise.	Your comments are addressed by changes reflected in the **Final EIS Corrections Table**.
70.	Other species of special concern are: *Myotis velifer; Macrotus californicus; Eumops perotis; Idionycteris phyllotis; and Corynorhinus townsendii.*	The change is reflected in the **Final EIS Corrections Table**.
71.	Pg. 3-29; Mojave Desert Tortoise Although a population of "Mohave" tortoises has been identified east of the Colorado river, in Arizona in the Black Mountains, this population is not listed by the USFWS and has no designated critical habitat in the Black Mountains.	Corrections to Section 3.6 Wildlife based on your comments are presented in the **Final EIS Corrections Table**.
72.	Pg. 3-32 Gila Monster The Gila Monster does occur in the project area.	The correction to Section 3.6 Wildlife is reflected in the **Final EIS Corrections Table**.
73.	Pg. 3-32 Greater Western Mastiff Bat This bat is found in the project area in the Black Mountains. There is a known roost within 1/2 mile of the proposed route through the Black Mountains.	The correction to Section 3.6 Wildlife is addressed in the **Final EIS Corrections Table**.
74.	Pg. 3-32 Sonoran Desert Tortoise This species is also a BLM sensitive species.	The correction is reflected in the **Final EIS Corrections Table**.
75.	Pg. 3-33 Transmission Lines and Interconnections To make the document more user friendly I suggest you reference the maps for each segment you talk about. That way the reader doesn't have to search the maps.	Corrections to Section 3.6.2 are reflected in the **Final EIS Corrections Table**.

No.	Comment	Response
76.	Table 2.1-4 Although reseeding, and revegetation is handled for desert tortoise habitat in this table, what about all the other habitat areas? The mitigation section needs to reference a reclamation and salvage plan for all parts of the project found on public land. I found a reference to salvage on page 4-24 under the Proposed Action section. This is not adequate where the project crosses public land. A salvage and revegetation plan needs to be developed.	As part of the BLM Right-of-Way Grant application process, Griffith Energy will submit detailed plans for salvage and reclamation as part of their final Plans of Development for the Temporary Access Road and the Natural Gas Pipeline. Both linear facilities will cross BLM-administered public lands. Similar plans for salvage and reclamation of public lands affected by new transmission line construction will be developed by Western in cooperation with the BLM as needed. Western is committed to salvage and reclamation of disturbed areas as stated in Table 2.1-4.
77.	Chapter 4 - Environmental consequences pg. 4-27 Wildlife The last issue should be expanded to include not only threatened and endangered species but "loss of habitat for threatened and endangered species and other special status species."	The correction to wildlife issues has been addressed in the **Final EIS Corrections Table**.
78.	Pg 4-28, para. 5 The BLM also considers the Sonoran desert tortoise a sensitive species.	The correction to Section 4.6.2.1 is reflected in the Final EIS Corrections Table and the Appendix addressing the eastern gas pipeline.
79.	Pg 4-28, para. 6 Along the area where the new pipeline is proposed, as one approaches the foothills of the Hualapai Mountains, the habitat is not marginal, and the potential for encountering the Sonoran desert tortoise and the Gila monster is high.	Page 4-28 paragraph 5 has been modified to reflect information presented in the comment. See modification in Chapter 2 of the Final EIS.
80.	Pg. 4-29, para. 8 Remove the word "voles".	The correction is reflected in the **Final EIS Corrections Table**.
81.	Pg. 4-30, para. 3 Concerning long-term and short-term habitat loss: Even in the absence of blading, the BLM considers habitat loss to be long term if an area is used repeatedly by vehicles so that the vegetation is altered and a "way is formed" from this repeated use.	Page 4-30 has been modified to reflect information presented in the comment. See the modifications for Section 4.6.2.2.1 in Chapter 2 of the Final EIS.

No.	Comment	Response
82.	Pg. 4-30, para 4 A discussion concerning impacts to the Gila monster and rosy boa belong in this section. Impacts to these two species will be similar to those described for other wildlife species. Mitigation for desert tortoise will also benefit these two species.	Page 4-30 has been modified to reflect information presented in the comment. See the modifications for Section 4.6.2.2.1 in Chapter 2 of the Final EIS.
83.	Pg. 4-31, para. 1 and 3 Please detail in these paragraphs how much of the total acres of disturbance total acres reclaimed, and total acres lost to long-term disturbance would be on public land.	Page 4-31 has been modified to reflect information presented in the comment. See the modifications for Section 4.6.2.2.1 in Chapter 2 of the Final EIS.
84.	pg. 4-31, para. 7 Desert tortoise also occur in this section of the project.	The correction has been addressed in the Final EIS Corrections Table.

COMMENTER	ORGANIZATION	CITY/STATE
Paul Hobbs	Bureau of Land Management	Kingman, AZ

85.	There is no soils map identifying what the soils are in the project area in the list of figures for cross referencing and supporting soils statements in DEIS. Provide a useable one in the text.	Soils maps have been prepared for both the power plant site and associated facilities as well as the transmission line routes. These appear as **Figures 3.4-1, 3.4-2, and 3.4-3.**
86.	In section 3.4.1, the citation for soils mapped by NRCS 1998. Is this information derived from the Interim Report 1996, or is this a separate and more recent site specific mapping project done in 1998 for this Griffith Energy Project?	There has been no site specific soils mapping for the Griffith Project. The "NRCS 1998" reference refers to unpublished soils mapping provided by the Natural Resources Conservation Service field office in Kingman in 1998.
87.	Section 3.4.2, Proceed with reseeding-revegetation efforts on the soils in all segments where practical. The use of the repetitive phrase "Revegetation of these soils is difficult because of excessive coarse fragments within the profile" is used, potentially justifying no reclamation. Reclamation efforts on the part of the proponent will occur.	Corrections to Sections 3.4.2.2, 3.4.2.3, and 3.4.2.6 are reflected in the **Final EIS Corrections Table**.

COMMENTER	ORGANIZATION	CITY/STATE
Don Simmonis	Bureau of Land Management	Kingman, AZ

No.	Comment	Response
88.	Chapter 3, 3.7, p.3-38 should include a brief discussion of the Hardyville Toll road and state that it has only been recorded on the west side of the Black Mountains as discussed in Segment Z. The historic route definitely went east of Kingman and the proposed project crosses it in this area.	Information on the Hardyville Toll Road has been added. See the addendum for Section 3.7 in Chapter 2 of the Final EIS.
89.	Chapter 3, 3.7.2.3, p. 3-41 (Segment C) should contain a brief mention of the Hardyville Toll road which parallels I-40 and that it probably has been destroyed where the proposed project crosses it.	There is no known record for any portion of the Hardyville Toll Road along the heavily disturbed I-40 corridor or the Kingman area generally. It may be correct in believing that the toll road "probably has been destroyed" in the area of the proposed Segment C crossing. Nevertheless, the focused pre-field survey research that was mentioned in response to Comment No. 88 will include the vicinity referenced here.
90.	There have been many archaeological surveys and reports of gas lines, power lines, roads, etc., that have not even mentioned the Hardyville or Hardyville-Prescott Toll road that went through the area. Even if it is mostly gone, it is important to include it in the text for future projects in the area to be aware of. It is also important for historical reasons.	Your comment has been noted.

COMMENTER	ORGANIZATION	CITY/STATE
Duane J. Aubuchon	Arizona Game and Fish Department	Kingman, AZ

No.	Comment	Response
91.	WATER RESOURCES - Surface Water Quality (pages S-6, 2-32) This section states that the brine disposal pond would exceed surface water standards for chronic and acute exposure to arsenic, barium, cadmium, chromium, copper, mercury, selenium, silver and zinc. The summary also states that over the life of the project, this may result in potential mortality to waterfowl and other birds landing on or using the pond (page 5-8, 2-34 and 4-28). On page 4-10, the DEIS claims that concentration of these chemicals would exceed aquatic and wildlife effluent dependent surface water standards for chronic and acute exposure. Another DEIS paragraph contradicts these statements (page 4-28) declaring that no impacts are anticipated since the water would be of no higher TDS than seawater. This paragraph also describes anticipated waterfowl visitations to the pond to be infrequent and irregular because the Plant is outside the main Colorado River basin which contains the nearest flyway. This information is incorrect, as the Department has noted high waterfowl visitation rates at other toxic ponds over 20 miles from the Colorado River. At one location, the Copperstone Mine outside of Parker, Arizona, the Department documented hundreds of waterfowl mortalities associated with a cyanide leaching operation. The Copperstone Mine prevented further mortalities by placing polyurathane mesh netting over the cyanide ponds to prevent waterfowl access. The Department recommends monitoring waterfowl use of the brine disposal pond and implementing a similar system if the proponent observes waterfowl use and/or mortalities. The owners of the Griffith Power Plant will be responsible for any waterfowl or other wildlife mortalities caused by the brine disposal pond and may face possible criminal and civil sanctions as a result of wildlife losses.	See Response to Comment No. 4.

No.	Comment	Response
92.	PURPOSE AND NEED (page 1-2) This section does not present a purpose or need for the construction of a new power plant in the Kingman area. Is there currently a power shortage or a projected increase in demand? Perhaps elements of the Northwestern Arizona Transmission Study described on page 3-66 should be included within this section.	Additional information has been provided to relate the project's purpose and need to Western's mission and open access transmission tariff. See the Addenda section in Chapter 2, of the Final EIS.
93.	Table 2.1-3 and WILDLIFE (pages 2-12 and 4-27 to 4-32) The permanent loss of wildlife habitat due to construction of the Griffith Power Plant (65 acres) and associated roads (59 acres), transmission line structures (1 acre), and substation (10 acres) totals approximately 135 acres. It is Department policy (I2.2) to seek compensation at the 100% level, where feasible, for potential or actual habitat losses resulting from land or water projects. The Department classifies the habitats where the Griffith project occurs as resource category III, or lands with a high to medium value for Arizona's wildlife. The Department's goal for projects occurring on these lands is no net loss of habitat value. We recommend considering general habitat replacement values for the Griffith project concurrent with the development of a compensation plan/formula required for the loss of designated BLM tortoise habitat (paragraph 3, page 4-29).	Long-term habitat losses within areas of BLM designated desert tortoise habitat would be compensated for as a result of the Desert Tortoise Compensation Plan.
94.	The third paragraph on page 3-28 describes several antelope populations that occur near the proposed project site. Many of these are incorrect. Antelope occur in the Hualapai Valley area and in the Hackberry Wash area east of the Peacock Mountains, but the Goodwin Mesa and Truxton herds are several miles away from the project location. Round Valley is not an area the Department is familiar with in the project vicinity. Additionally, antelope were seen in the Dutch Flat area nearly 20 years ago, but this was an incidental sighting and they have not been seen there since that time.	Page 3-28 has been modified to reflect information presented in the comment. See the modification for Section 3.6 in Chapter 2 of the Final EIS.

No.	Comment	Response
95.	The fifth and sixth paragraphs list species whose range does not occur close to the project area. The antelope jackrabbit (*Lepus alleni*), mesquite mouse (*Peromyscus merriami*), and Harris hawk (*Parabuteo unicinctus*) are all species which occur in southeastern Arizona, but do not occur in the Kingman area.	Page 3-28 and 3-29 has been corrected to reflect information presented in the comment. See the Final EIS Corrections Table.
96.	4.5.2 PROPOSED ACTION (page 4-25) The Department recommends including a map with this section that displays all the proposed project roads, and differentiates the roads that will remain open after the project is complete from those that the Western Area Power Administration plans to close and reseed.	The scale of the maps used for the Draft EIS are not sufficient to display the proposed access roads. Existing roads and trails would be used for the transmission line upgrade of the Davis-Prescott and the Griffith-Peacock transmission line, where it parallels the existing transmission line. Western does not anticipate that any roads used for construction of the upgrade or the Griffith-Peacock line would be closed since they will be needed for the maintenance of the transmission lines. Western will consult with the Arizona Game and Fish once the transmission lines are constructed to determine if there should be any road closures for wildlife enhancement purposes.
97.	4.16 CUMULATIVE IMPACTS (page 4-90, 4-91) The Department recommends improving the analysis within this section by including a more in-depth evaluation of reasonably foreseeable future actions. For example, the DEIS estimates the use of natural gas by the Griffith Power Plant at 22.1-41.5 billion cubic feet per year. This would amount to a consumption rate of .058-.108 percent/year of the Texas reserves and .013-.025 percent/year of the proved U.S. natural gas reserves (page 4-1). There is no discussion of how this rate of natural gas consumption will impact these reserves over the life of the project (50 years) or how similar power plants (e.g. South Point Power Plant) in conjunction with the Griffith Power Plant will affect the sustainability of these reserves.	See the addendum for Section 4.16 in Chapter 2 of the Final EIS. Even though the proposed project life is 40 years, 50 years of operations has been discussed in direct response to the comment.

No.	Comment	Response
98.	This section also states that over the life of the project water demands for industrial use in the Sacramento Valley aquifer is expected to triple, and municipal use of the aquifer would double. An ADWR report (1994) developed these estimates and claimed the water supply was adequate to sustain that volume of consumption for 100 years. The DEIS does not indicate if the ADWR report (1994) evaluated the impacts of water withdrawals from development of the proposed I-40 Industrial Corridor and Dutch Flat residential community. The Department recommends evaluating/modeling the effects these future developments will have on aquifer supplies and water table levels. The Department also recommends including a discussion on the effects projected groundwater use will have on natural spring flows within the watershed, since many wildlife populations are dependant on these water sources for their survival.	Although general statements project future growth in the Sacramento Valley, the proposed I-40 Industrial Corridor and the Dutch Flat residential community, there are no specific statements of commercial or industrial activity, nor of the population density expected. Without this type of information, any modeling to determine the projected water demand and the effect on the aquifer would not be valid. Regarding the springs, see the Addendum for Section 4.2.2.1.1 in Chapter 2 of the Final EIS.
99.	Similarly, the DEIS assesses the Griffith Power Plant's projected impact on air pollution standards and regional haze in the Grand Canyon airshed, but it does not analyze the reasonably foreseeable cumulative impacts from other heavy industry sources proposed for the I-40 Industrial Corridor. The Department recommends evaluating the cumulative impacts of the projected development of heavy industry within the I-40 Industrial Corridor on meeting State air quality standards and visual range requirements for the Grand Canyon airshed.	The Council on Environmental Quality guidelines for analyzing cumulative impacts require that "past, present, and reasonably foreseeable actions" be considered. The Draft EIS did address other air quality emissions (past, present and future) in the area. Past and present emission sources were included in the baseline conditions incorporated in the air quality model developed for this project as described in Section 4.16 of the Draft EIS and were used as the existing conditions against which the impacts of the project were assessed as required by EPA and ADEQ regulations. The cumulative effect of adding other sources of emissions in the future as a result of future development of the I-40 Industrial Corridor and other uses is discussed in Section 4.16 of the Draft EIS. While some potential additional projects in the area are currently being discussed, plans for them have not been finalized (i.e. plans or permit applications have not been filed). Therefore, the likelihood for them to proceed and the quantification of their potential effects are not reasonable to assess beyond the level described in the Draft EIS. Also, see response to Comment No. 139.

No.	Comment	Response
100.	4.18 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES (page 4-94) The DEIS should include the use of natural gas under this heading.	A change to Table 4.18-1 has been made. See the Final EIS Corrections Table.
101.	PROPOSED ACTION AND ALTERNATIVES (page S-2) The numerical order in the second paragraph skips from 3) to 6).	The summary has been revised.
102.	GEOLOGIC HAZARDS (page 3-2) The second paragraph under this heading implies that earthquakes with a magnitude of 9.9 have occurred within the project area. The paragraph should clarify that 3.5 to 9.9, and 4.5 to 9.9, are only a range of conditions. Another option would be to lower the top of this range to a magnitude of 6.1, the largest earthquake on record for the area.	The text in the Draft EIS did not intend to imply that an earthquake of magnitude 9.9 has occurred in the region. It was intended to refer to earthquakes within the range of magnitude 3.5 to 9.9 which occurred between 1973 and 1998 and earthquakes within the range of magnitude 4.5 to 9.9 which occurred prior to 1973. These were the ranges of magnitudes reported by the earthquake database searches. A 6.1 magnitude earthquake has been the largest recorded event within a 200 km radius of the power plant site. The text has been modified as noted in the Final EIS Corrections Table.
103.	3.32 AIR QUALITY (page 3-18) The first paragraph has an unnecessary end parenthesis mark after the word "typically."	The correction is reflected in the **Final EIS Corrections Table**.
104.	The next paragraph lists only the second highest 24-hour average measure for inhalable particulate matter less than 10 microns in diameter. The DEIS should also include the highest 24-hour average measurement; otherwise, it appears as though this information is purposefully withheld.	The highest 24-hour concentration of PM_{10} was 64.7 $\mu g/m^3$. The second-highest value of 48 $\mu g/m^3$ was reported in the Draft EIS because this is the value commonly used by agencies to depict the true background because one exceedance of the highest level is allowed. The EIS has been updated to reflect the comment. See Final EIS Corrections Table.
105.	3.8 LAND USE Page 3-47 and 3-48 claim the formal designation of the I-40 Industrial Corridor will be decided in a hearing held by the County in late 1998. On page 3-49, the hearing date has changed to October 1999. Page 3-50 lists the hearing date as October 1998. These sentences should be corrected and present consistent information.	On December 21, 1998, the County Board of Supervisors approved rezoning of all or portions of Township 20N., Range 17W., in Sections 19, 30, 31, Township 19N., Range 17W., in Sections 6 and 7 and Township 19 N., Range 18W. in Sections 10, 15 and 16 from A-R/36A (Agricultural-Residential/36 Acre Minimum Lot Size) to M-X (Heavy Manufacturing). This was accomplished by approval of Resolution 98-414. Township 19N., Range 18W., in Sections 12, 13 and the northern half of 14 were previously zoned M-X. The boundary of the entire proposed industrial corridor in Mohave County is shown on Figure 3.8-2c at the end of Chapter 2 of the Final EIS.

No.	Comment	Response
106.	3.9.2.5 SEGMENT E (page 3-53) Separate the word “is limited” in the fourth sentence.	The correction is reflected in the **Final EIS Corrections Table**.
107.	3.11 SOCIOECONOMICS (page 3-61) Change the city name of “Los Vegas” to “Las Vegas” in the fourth paragraph.	The correction is reflected in the **Final EIS Corrections Table**.
108.	4.2.2.1.1 GROUNDWATER QUALITY (page 4-8) The first sentence of the last paragraph on this page should include the word “by” in the sentence, “....affected by potential spills...”	The correction is reflected in the **Final EIS Corrections Table**.
109.	4.6.3.2 ALTERNATIVE PIPELINE (page 4-32) The title of this section should be, “Alternative Transmission Line.”	The correction is reflected in the **Final EIS Corrections Table**.

COMMENTER	ORGANIZATION	CITY/STATE
Michael Kondelis	Mohave County Public Land Use Committee	Kingman, AZ

110.	Under the first proposal, the plant area and power lines would have had very little visibility from Interstate 40 and the expanding Mohave County Industrial Corridor. The power lines ran north from the power plant, connecting into the existing Davis-Prescott 230-kV transmission line. NONE of the lines crossed Interstate 40. The present project as presented in the DEIS by Western Area Power Administration (WAPA), the Lead Agency, has extensive changes to the power lines. The additional miles of power lines is one negative environmental factor, but not the main factor we find questionable.	The original proposal included one crossing of I-40 by a new 230-kV transmission line. Western’s current preferred alternative includes two adjacent and parallel crossings of I-40 in Segment A as shown on Figure 1.1-1. The rights-of-way for the preferred alternative across I-40 utilizes the previously approved and permitted transmission right-of-way acquired by Citizens Utilities.

No.	Comment	Response
111.	The two 230-kV transmission lines proposed by WAPA would cross Interstate 40; Segment B continuing northeast and connecting to the Mead-Liberty transmission lines and Segment D, turning north and paralleling Interstate 40 for over three miles before connecting to the McConnico Substation. The visual effects of these power lines obscures the mountains and natural beauty of our area to tourist and potential companies that may move or expand their facilities to our Industrial Corridor. We feel a less visible route for Segment D would be in the best interest of Mohave County.	Western conducted additional visual analysis, including the development of a new simulations. The simulations demonstrate that the new transmission line would be visible from Interstate-40 (I-40). Western explored other alternative routes for proposed Segment D that parallels I-40. Western did not identify any routes that were feasible from an engineering perspective. Western believes the visual impacts are not significant for Segment D due to the industrial\manufacturing zoning near the proposed route and low visual resource management classification. See the addendum in Chapter 2 of the Final EIS that has been added for routing alternatives to Segment D to supplement the discussion in Section 2.2.2.3.1 of the Draft EIS, **Transmission Alternatives Considered but Eliminated from Detailed Analysis**. Also, visual simulations of what Segment D would look like from I-40 and corresponding discussion has been developed. An addendum for Section 4.9.2.2.2, Griffith-McConnico 230-kV Line (Segment A and D) discussing the simulations and the visual impacts of Segment D has been incorporated into Chapter 2 of the Final EIS.

No.	Comment	Response
112.	Based on current information the groundwater available in the Sacramento Groundwater Basin is 2.3 million acre feet to a depth of 1200 feet below the ground surface, with a total of 7 million acre feet stored within the basin. Demand for the Golden Valley area was 1258 acre feet in 1990. Demand for The southern part of the basin, where the Griffith Energy Project is proposed, is unknown. A 100-year usage supply, drawing the water down to the 1200 foot level, would allow 20,000 acre feet to be withdrawn from the entire basin per year. (Staff Report, Arizona Department of Water Resources, 3/24/94). Assuming the demand for the southern part of the basin is at least equal to the Golden Valley area and allowing for increased use since 1990, it would be reasonable to assume the current demand for the entire basin is around 4,000 acre feet per year. The Griffith Project proposed annual withdrawal of 3,064 to 5,323 acre feet. (Page 2-31 Draft EIS) Although the EIS contends this would have a minimal impact on the total volume of water in the aquifer, it will, effectively, double the current use. Although this use is still well below the 20,000 acre feet per year available for the next 100 years, a cause for concern comes to mind when the use is compared to the amount of recharge back into the aquifer. The estimated annual recharge for the entire basin is 2,000 acre feet per year. (Page 22, Hualapai Mountain Land Exchange EIS) If the Griffith project goes in, we will then be taking out approximately 8,000 acre feet per year and putting back 2,000 acre feet.	Development generates benefits but also has some costs. As you noted, the ADWR has suggested that the Sacramento Valley aquifer can sustain 23,000 acre-feet per year consumption for 100 years, based on Gillespie's calculations of recharge of 4,000 acre-feet per year. Additional estimates of the recharge suggest recharge is 4,637 acre-feet per year in this portion of the Basin. Existing demand of 1,222 acre feet per year plus projected average power plant consumption of 3,064 acre-feet per year is close to the average annual recharge, but nevertheless would result in drawdown of the aquifer over the next 40 years. Maximum power plant consumption, 5,323 acre-feet per year, and ADWR projections of use of 2,234 acre-feet per year in 2040 is approximately half of ADWR's projection of sustainable consumption of 16,000 acre-feet per year for 100 years.

COMMENTER	ORGANIZATION	CITY/STATE
Deanna M. Wieman	United States Environmental Protection Agency, Region IX	San Francisco, CA

No.	Comment	Response
113.	We have rated this DEIS EO-2 -- Environmental Objections-Insufficient Information. (See the enclosed "Summary of Rating Definitions and Follow-up Action"). The document has been rated according to guidance in our Policy and Procedures Manual for Review of Federal Actions Impacting the Environment (EPA Manual 1640). The basis of the "EO" portion of our rating reflects the potential for significant environmental degradation that could be corrected by project modification or other feasible alternatives-- in situations where there is no applicable standard or where applicable standards would not be violated. The "2" portion of our rating is based on the need for additional information and clarification in the EIS on the Purpose and Need statement and alternatives analysis, permitting, water-related impacts, and cumulative impacts.	Your comment has been noted.
114.	According to our manual, the basis for an objection can also be made where proceeding with the proposed action would set a precedent for future actions that collectively could result in significant environmental impacts. With the onset of deregulation in the electric services industry, EPA expects the construction of additional non-utility-owned "merchant plants" in the near future. Our expectations are that Federal agencies, such as Western, involved with the environmental review of actions related to these proposed plants, will fully embrace the intent of Section 101 of the National Environmental Policy Act (NEPA), which requires agencies to use all practicable means to administer Federal programs in the most environmentally sound fashion and to ensure that the agency has fully considered the environmental consequences of its actions.	Your comment has been noted.

No.	Comment	Response
115.	Western states in the DEIS that the Griffith Power Plant has been approved by the Arizona Corporation Commission's Power Plant and Transmission Line Siting Committee through a formal application approval process. EPA is very concerned that this previous approval may be unnecessarily influencing Western's NEPA process and is therefore not consistent with NEPA where an EIS "...shall serve as the means of assessing the environmental impact of proposed agency actions, rather than justifying decisions already made" (40 CFR 1502.2(g)). Western has limited its Preferred Alternative to the transmission line portion of the Project. It is EPA's view that Western's approval of their Preferred Alternative would not occur without the proposed power plant. Therefore, the underlying purpose, in the context of environmental protection, to which Western is responding to, is generation and delivery of electrical power. In our attached detailed comments we include further discussion and recommendations regarding Purpose and Need, and alternatives analyses, and encourage Western to include additional alternatives in the Final Environmental Impact Statement (FEIS). EPA's concerns over potential impacts to water resources and quality drive our alternatives analyses recommendations.	Based on discussions with EPA, Western has amplified its purpose related to its business practices and mission. See the Addenda in Chapter 2 of the Final EIS.
116.	We appreciate the opportunity to review this DEIS. EPA intends to work with you, and would like to also work with the Department of Energy (DOE) to resolve our objections, ensure incorporation of additional information into the DEIS, and clarify issues. We will contact you to set up a meeting to implement the resolution process to our objections. Two copies of the Final EIS should be sent to this office, attention David Farrel, at the letterhead address (mail code CMD-2) when it is officially filed with our Washington, D.C., office. For any questions, please contact Karl Kanbergs, of my staff, at (415) 744-1483, or David Farrel (Federal Activities Office Chief) at (415) 744-1584.	Western representatives met with EPA on January 6, 1999. The results of the meeting are summarized in an EPA letter included in the Appendix of the Final EIS.

No.	Comment	Response
117.	*Purpose and Need*. Western defines "need" as a need to respond to Griffith's request for interconnections to Western's power grid. The described "purpose" includes several components that include provision of sufficient transmission service and capacity to support the Project, to meet the intent of Federal Energy Regulatory Commission (FERC) requirements, to ensure that transmission reliability and voltage support criteria are maintained or improved, and to minimize adverse environmental effects. EPA disagrees with Western's narrow definition of its Purpose and Need statement. The Council on Environmental Qualities Regulation (CEQ) at 40 CFR 1502.13 (Purpose and Need) states that "the statement shall briefly specify the underlying (emphasis added) purpose and need to which the agency is responding in proposing the alternatives including the proposed action." Our interpretation of the purpose of the proposed action is to generate electrical power due to a consumer demand. In our EIS scoping comment letter of May 21, 1998 to your Agency, we stated: "The Purpose and Need section should clearly describe the purpose of the project and how the purpose will be achieved by implementing the project. This section should set out the need for additional power supplies, the need for the connection into Western's grid, and the need for the proposed method of transmission and routing. The Draft Environmental Impact Statement (DEIS), should provide background information, including reference to previous EISs and other environmental documents (concept of tiering, see 40 CFR 1500.4(i), and 1502.20) and the relationship of the proposed project to other power generation facilities, such as Glen Canyon Dam."	Based on discussions with EPA, Western has amplified its purpose related to its business practices and mission. See the Addenda in Chapter 2 of the Final EIS.

No.	Comment	Response
117. (cont)	Western should redefine or augment its need statement to include the above information. In the Final Environmental Impact Statement (FEIS) we ask that Western discuss the issues presented above, and provide decision makers and the public with the necessary background information to determine the true need for the additional power generation-- both in the context of Western's transmission grid requirements and the documented or projected market demand. A thorough discussion of these issues would also facilitate discussion of potential project impacts on growth. A revision of the Purpose and Need statement in the FEIS would also facilitate a better alternatives analysis.	

No.	Comment	Response
118.	2. *Alternatives Analysis*. Our focus on recommending additional alternatives analysis is to assure that maximum consideration has been given to minimizing use of water resources and minimizing production of potentially toxic byproducts from that water use. Please refer to the Water Issues and Biologic Resources section of our comment letter regarding our water-related environmental concerns. Our recommended analysis focuses on the potential for presentation of an alternative power plant design, or modification of the current design, in the FEIS. Regardless of whether the project has already been approved by another non-federal agency, one of the primary purposes of an EIS is to "...inform decision makers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment." (40 CFR 1502.1). In our scoping comment letter under alternatives analysis we stated: "The DEIS should rigorously explore and objectively evaluate all reasonable alternatives, including reasonable alternatives not within the jurisdiction of your agency, pursuant to 40 CFR 1502.14. Reasonable alternatives could include, but are not necessarily limited to, alternative power plant sites, reduced project size, and alternative technologies, including solar power plants and wind farms. Alternatives for the proposed action (with the exception of the No Action Alternative) should correspond to the basic project Purpose and Need." An agency should include reasonable alternatives not within the jurisdiction of the lead agency, as supported by CEQ regulations (40 CFR 1502.14(c)), and question 2a of NEPA's Forty Most Asked	Several alternatives that would reduce water consumption, including dry cooling, were considered for the Griffith Energy Project. Additional information on these alternatives has been included in the discussion of the alternatives for the power plant that were considered but dismissed.

No.	Comment	Response
118. (cont)	Questions. The answer for question 2a states that in "determining the scope of alternatives to be considered, the emphasis is on what is 'reasonable' rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative." EPA has recently completed its review of the DEIS for Western's Sutter Power Project, Sutter County California (Western Area Power Administration, October 1998). The proposed action is a 500 megawatt natural gas-fired combined cycle, electric generation facility. Through working with various agencies, including EPA, the project proponent changed the design of the powerplant, from one with conventional water cooling towers, to a design incorporating 100% dry cooling. By this design change, original projected groundwater consumption of 3,000 gallons per minute would be reduced to 140 gallons per minute, thereby achieving 95% reduction of groundwater use. Additional benefits of reduced water use would include elimination of contaminated cooling tower "blowdown" water, and elimination of particulates (PM10) from cooling tower emissions. In the FEIS for the Griffith Project, Western should examine the dry cooling system alternative, and should include this alternative if it can be shown to be reasonable from the technical or economic viewpoint.	See previous page.

No.	Comment	Response
118a.	While we agree that the current project site appears to be a reasonable choice from a site logistics perspective, we also recommend that Western, in the FEIS, amplify the discussion of why other potentially more environmentally preferable sites were not analyzed by Western. This should be done in the context of Western's revised Purpose and Need statement. Alternative sites should not be dismissed just because the current proposed site has been approved by a state agency, or has good economic siting logistics (DEIS pg. 2-27); moreover, an EIS should effectively screen for sites with the potential for the last adverse environmental effects utilizing the alternatives analysis process.	Given that the purpose of the proposed Griffith Energy Project is to provide wholesale power to the regional electrical markets, it could be located anywhere in the region and several sites were evaluated. However, Griffith Energy determined that siting the project near Kingman and building the necessary transmission interconnections to export the generated power would provide a secondary benefit to Mohave County of increasing the reliability of the local electrical system. This is discussed in section 4.10.2.2 of the Draft EIS. Therefore, no sites outside the vicinity of Kingman were considered. The next step was to find a site in this area that met three primary criteria: 1) compatible zoning and nearby land uses, 2) sufficient distance from the Grand Canyon to minimize any potential regional haze impacts, and 3) proximity to gas, transmission, highway, rail, and water as discussed on page 2-27 of the Draft EIS. The industrial areas in the vicinity were evaluated and the I-40 Industrial Corridor was selected because it the industrial area farthest from the Grand Canyon. Within this area, sites that best met criteria 3 above were evaluated and, in conjunction with the County, the proposed site was selected. These criteria, in addition to being the most economical also best minimize the impacts associated with the project's needed infrastructure. All of this information was considered in the siting decision made by the State and their issuance of a Certificate of Environmental Compatibility which is referenced in the Draft EIS. Also, this information is discussed in other sections of the Draft EIS though not in a siting context. Other sites were not evaluated in the EIS because the environmental screening and the minimization of adverse effects for sites was already conducted by the referenced State siting process, the siting of the facility is outside the purview of the Federal action necessitating the EIS, and the proponent does not own or control other sites.

No.	Comment	Response
119.	*Integration of NEPA Requirements With Other Planning and Environmental Review Procedures*. The DEIS states that procedures of formal consultation with the U.S. Fish and Wildlife Service (USFWS) and the State Historic Preservation Officer (SHPO) have been initiated. We note that in various sections of the DEIS, it states that additional surveys will be done prior to construction of the proposed facilities. Western should ensure that all appropriate surveys (archeological, cultural, traditional cultural, and biologic) are completed prior to issuing a Record of Decision (ROD), and should present any planned additional surveys, if possible, in the FEIS. The integration of the requirements of NEPA with other planning and environmental review procedures required by law is mentioned in the CEQ regulations no less than three times (40 CFR 1500.2(c)--Policy, 40 CFR 1501.7(a)(6)--Scoping, and 40 CFR 1502.25(a)--Environmental Review and Consultation Requirements). Additional comments relating to our recommendation to completing surveys and consultations are mentioned under Cultural Resources and Biologic Resources headings of our comment letter.	Western has discussed this comment with EPA. Western's go/no-go decision and selection of preferred alternative are included in its records of decision. Upon a decision, Western's practice has been to initiate any required intensive biological and cultural resource surveys upon completion of preliminary design work and in conjunction with land surveys for a project. The results of both cultural resource and biological surveys are used during the design phase of project to facilitate transmission structure, substation, and access road siting. The National Historic Preservation Act and the Endangered Species Act require Western to limit ground disturbing actions until appropriate concurrences are received from the State Historic Preservation Officer and the U.S. Fish and Wildlife Service, respectively. In the case of Griffith, Western will not authorize any ground disturbing activities until the completion of cultural resource consultations and biological surveys stipulated by the U.S. Fish and Wildlife Service. Since the issuance of the Draft EIS, Western has received conditional concurrence to its determination that the proposed Griffith Energy Project will not adversely affect any endangered, threatened, or candidate species, provided preconstruction surveys are conducted and construction activities are curtailed around any discovered peregrine falcon nesting sites. This concurrence completes the endangered species consultation process. In addition, an intensive cultural resource survey of the proposed Peacock Substation site and vicinity has been completed. No cultural or historic resources were discovered and Western has determined that the construction of the substation will not have an effect on any properties eligible to National Register of Historic Properties. Cultural resource surveys for the other components of the project would begin once a go/no-go decision is made and the applicant provides funding for the survey work. If Western discovers any properties eligible to the National Register of Historic Properties, Western would mitigate the impacts to these properties in consultation with the State Historic Preservation Officer.

No.	Comment	Response
119. (cont)		(cont.) Western recognizes that the project has a potential to effect traditional cultural resource properties of the Hualapai and Navajo tribes, and will consider any effects in its decision making process. The Hualapai traditional cultural resource survey has been completed and the results have been summarized in the Final EIS. The Navajo tradition cultural resource survey is scheduled for completion by April 1999. Western will take into account the results of the TCP surveys in its Record of Decision and cultural resource consultation process with the State Historic Preservation Officer.
120.	*EIS Index*. The FEIS should include a subject index per requirements of 40 CFR 1502.10(j).	A subject index has been developed and included in the Addenda section of the Final EIS.
121.	*Cumulative Impacts*. Western acknowledges that the project may indirectly induce growth. EPA recommends that in the FEIS, Western expand its analysis of the potential project-induced growth to include growth impacts outside of the Kingman Area, and the growth implications of generating enough power to potentially service about 500,000 homes. We note that the Proposed Action would be capable of transporting power to both the Las Vegas metropolitan area and the Phoenix metropolitan area. The implications of electrical power generation at Griffith to growth issues related to these metropolitan areas should be discussed in the FEIS. The CEQ guidelines recommend varying the geographic scope of the analysis commensurate with the resource being analyzed. For additional clarification ad reference on Cumulative Impact analysis we refer you to the CEQ publication *Considering Cumulative Effects Under the National Environmental Policy Act* (CEQ, January 1997). The complete document may be down loaded from the following URL address: http://ceq.eh.doe.gov/nepa/ccenepa/ccenepa.htm. According to the CEQ, the principles of cumulative impacts analyses are: inclusion of past, present and future actions, inclusion of Federal, nonfederal, and private actions, focus on each affected resource, ecosystem, and human community, and focus on truly meaningful effects.	Historically, utilities in the west and the Western Systems Coordinating Council (WSCC) have worked together to address electricity demand growth rates to maintain regional system reliability. Independent power producers have participated in studies and activities addressing system reliability. In the Arizona-New Mexico Power Area, the average summer compound growth rate is projected to be 2.2 percent for 1996 to 2006 with adverse hydro conditions. During this 10-year period within the Arizona-New Mexico Power Area, annual energy loads will increase from 79,247 MW in 1996 to 97,379 in 2006. With the changing utility environment from a regulated industry to a market-driven industry, less generation will be developed in response to load growth demands and more will be developed in response to market conditions. In either scenario, WSCC will monitor planned generation additions to ensure reserve generation capacity is available to meet peak demands. The peak demand reserve margin in the WSCC region will remain about the same within a deregulated environment. The Griffith Energy Project is being developed in response to deregulation in California. It is not being developed in response specific load growth demand, but rather by opportunities to compete in a deregulated electrical markets. There is no correlation between load growth projections and the development of the Griffith Energy Project. The Griffith Energy Project has ample opportunity to offset more expensive, less efficient generation.

No.	Comment	Response
122.	Western describes an industrial zoned corridor adjacent to the proposed powerplant. In the FEIS the aerial extent and location of the industrial corridor should be shown on a map. Additional information should also be provided on the magnitude and type of activity planned in the future. We also ask that Western explain, under cumulative impacts, the significance of the "future" 230/69-kV transformer and gas compressor area, mentioned on Figure 2.1-1.	The I-40 Industrial Corridor is not adjacent to the proposed power plant. The proposed plant is located within the industrial corridor. The boundary of the industrial corridor is shown on Figure 3.8-2c that has been included in the Final EIS. Seven sections within proposed industrial corridor around the Griffith site have been zoned for industrial development. Other than the County zoning the land for industrial development, there are no current plans for the magnitude and type of activity that could occur there. On Figure 2.1-1, the future gas compressor referenced is space reserved for the addition of a gas compressor for the Griffith Plant should it ever become necessary to boost the pressure of the gas provided by the gas suppliers. Currently, pressures would be adequate for the project but the contingency was added to address the potential for future changes in pressure. The future 230/69-kV transformer was included in the plan because Griffith Energy has agreed to provide a 69-kV tap for the existing Citizens Utilities 69-kV line that runs north-south through the Sacramento Valley. Citizens has indicated that they will not build their approved Kingman-Havasu 230-kV transmission line if the Griffith Project is built. The tap would improve the stability of the existing line if Citizen's doesn't build the 230-kV line. The tap is expected to use the same route as the construction powerline shown on Figure 2.1-3 in the Draft EIS.

No.	Comment	Response
123.	*Clean Water Act Section 402 Permits*. In the State of Arizona, EPA is the permitting authority for the National Pollution Discharge Elimination System (NPDES) program, which is mandated by Section 402 of the Clean Water Act. Thus, EPA is responsible for issuing NPDES permits to facilities located in Arizona. As described in Section 401 of the Clean Water Act, the role of the Arizona Department of Environmental Quality (ADEQ) is to review and certify that each permit ensures compliance with state-established water quality standards. NPDES permits are designed to ensure protection of surface water resources and are required by all facilities proposing to discharge pollutants to waters of the United States. The DEIS correctly notes that stormwater permits will be required for the proposed project. A Construction Stormwater Permit would be required for construction site run-off. For all discharges of pollutants to waters of the United States, the facility will be required to obtain on NPDES permit. If the facility is classified as a new source, EPA would be required to comply with the requirements of NEPA prior to permit issuance (40 CFR 122.29(c)). For further information on the process to be followed in determining new source status, as well as other permit requirements, the project applicant should contact Terry Oda, Chief, Office of Clean Water Act Permits and Standards, at (415) 744-1923, or Laura Gentile, EPA Water Division, at (415) 744-1913. The FEIS should discuss whether the project would be identified as a new source.	The project is designed to be a zero-discharge facility with no discharges to waters of the U.S. and therefore would not require an NPDES permit for process discharges. A Construction Stormwater Permit would be obtained for runoff from the plant site during construction. Stormwater from the site during operation would be routed to the brine pond so no discharge would occur.

No.	Comment	Response
124.	Water Quantity. According to the DEIS, maximum annual groundwater withdrawal would be 5,323 acre-feet per year, with a more likely average withdrawal of 3,064 acre feet per year. According to the DEIS, natural annual recharge to the Sacramento Valley aquifer is estimated at 4,000 acre-feet/year. The water from the Sacramento Valley aquifer eventually discharges into the Colorado River (30 miles away). On page 4-13 of the DEIS, Western states that in combination with the proposed project and other cumulative impacts the discharge of 4,000 acre-feet/year of water to the Colorado River could cease, but that considering the flow of the Colorado River is very large (11,040,000 acre-feet), "it is unlikely that the Sacramento Valley aquifer contribution would be missed." EPA considers a volume of water that would cover 4,000 acres one foot deep, to be a significant volume of water.	Your comment has been noted.
124a.	As described in the NEPA section of our comment letter, we recommend that on the FEIS, Western analyze alternatives which could reduce water use. In order to understand the various water needs of the proposed facilities, in the FEIS, under description of the Proposed Action, Western should include the percentages of water consumption per plant function (referring to uses of water at the powerplant as described in paragraph 1, page 2-3 of the DEIS).	A new table showing the water consumption associated with various plant functions has been developed and included in the Final EIS. See addendum for Section 2.1.1.2.1 in Chapter 2, of the Final EIS.

No.	Comment	Response
125.	*Water Quality*. The DEIS notes that the majority of wastewater requiring disposal would be produced by cooling tower blowdown. As proposed, waste streams would discharge to a 25-acre evaporation pond, with concentrations of potentially toxic constituents increasing over time through evapoconcentration. These products would be removed and disposed of according to applicable regulations at the end of the project life. Again, in the FEIS, Western should develop alternatives which would reduce or minimize this waste stream. Western notes that the proposed pond facility would likely require an Aquifer Protection Program (APP) permit from the Arizona Department of Environmental Quality (ADEQ) and would probably require monitoring requirements to detect potential pond leakage. In the FEIS, and ROD to follow, Western should describe and make a commitment to vadose zone and groundwater monitoring. In the FEIS, Western should provide further information on the proposed pond design, including the storm event capacity, amount of freeboard, and contingencies in the event of an unexpected storm event, much greater than design capacity.	The current plan includes features that minimize both water use and waste stream production. The primary feature is the plan to recycle water several times as indicated in the Draft EIS. This will be accomplished by using a newly developed reverse osmosis system to bring the water back to reusable composition after each cycle. The current preliminary design of the plant plans to recycle the water up to 12 times. Information on the planned groundwater monitoring system and the pond design parameters have been added to the Final EIS. See the addendum Section 2.1.1.2.1 in Chapter 2.

No.	Comment	Response
126.	*Technical Water-related Questions*. On page 3-7 of the DEIS, it states that previously demonstrated well capacity in the aquifer ranges from 25 to 725 gpm, yet the project proposes to drill six wells with production of approximately 1000 gpm per well (page 2-3). In the FEIS, Western should clarify whether the expected well capacity is realistic. Expected drawdown was modeled using the simulation model "THWells." In the FEIS, Western should note whether this is a validated model, and widely used and accepted for this type of modeling. The FEIS should also include information on other well pumping tests conducted in the general area, and ensure that this information has been considered in the simulation. The "hydrologic boundary" locations, as shown on Figure 4.2-4, should be explained in the FEIS. Any impacts to existing springs, including those whose locations are shown on Figures 3.2-2a, from the modeled groundwater withdrawal, should be described in the FEIS, and appropriate mitigation and/or monitoring proposed. We also note that the range labels do not match between Figure 3.2-2a and Figure 4.2-4.	The withdrawal projections of 3,300 gpm utilized six wells each pumping 550 gpm. The rationale for this rate of discharge was based on the average yield of wells in the basin. Should tests on the initial production well now being drilled prove that a higher rate of yield can be sustained then the projections can be modified. The program THWells was used to make a preliminary estimate of the drawdown caused by the withdrawal of 3,300 gallons per minute. The rationale for using this simplistic model for the preliminary estimate is that hard aquifer parameters are extremely limited at the time of the estimate. Consequently, the data used for input to the model were primarily assumptions. Thus using assumed or estimated input in a complicated model would not give results that were more "correct" than those given by THWells. Data is presently being collected from the drilling and testing of the wells being drilled for the Griffith Energy project. The program THWells calculates the drawdown or buildup of piezometric head based on discharge or recharge wells. The calculation of total drawdown is based on the Theis and Hantush-Jacob equations for non-steady state flow in an isotropic, homogeneous aquifer of infinite areal extent under confined or leaky confined conditions respectively. The model can be used for unconfined (water-table conditions) aquifers when the calculated drawdown in the model are less than half the saturated thickness of the aquifer. Boundary effects can be included through the use of image well theory. The resulting drawdowns are then superimposed on the existing water table. Use of the THWells model to calculate a preliminary estimate of the drawdown caused by withdrawal of groundwater under unconfined (water table) conditions is applicable, as the projections for the demand of this project result in a drawdown of only 12 percent of the thickness of the saturated aquifer. Further, drawdowns resulting from groundwater

No.	Comment	Response
126 (cont)		(cont.) withdrawal have been projected for the worst case (maximum consumption) conditions to conservatively estimate the effect of withdrawal. Most of the springs and seeps issue from the igneous, metamorphic and volcanic rocks in the mountain areas, and no springs are known to issue from the alluvium on the valley floors (Gillespie and Bentley, 1971). To feed the springs, the source for the springs must be upslope. This would indicated that the sources of the springs or at least 600 feet and in most cases significantly greater than 600 feet above the regional water level. Therefore, changes in the water level in the alluvial valley fill cannot effect the sources of water feeding the springs. In summary, the pumping rate is based on results derived from other wells in the region, and will be re-assessed with the development of the well field. The model THWells is a commercial software model which is used to assess drawdown or buildup of piezometric head due to the combined effect of multiple wells. It was revised in both 1992 and 1994 by P.K.M. Van der Heijde and is available from the International Ground Water Modeling Center. Published hydrogeologic data from the Sacramento Valley aquifer was used in the development of the site conceptual model and model setup. Hydrologic boundaries were established in conjunction with published geological data, and boundary effects could be ascertained using image well theory. Springs in the valley are located above the valley floor, and issue from fracture systems in the igneous, metamorphic and volcanic rocks. Drawdown within the Sacramento Valley aquifer will not affect spring flow from this topographically distant and hydrogeologically separate aquifer. Additional information on the water balance of the Sacramento Valley aquifer is included in an addendum in Chapter 2 of the Final EIS.

No.	Comment	Response
127.	*Potential Impacts of the Proposed Brine Disposal Pond*. The brine disposal pond would receive waters which eventually "...would exceed aquatic and wildlife effluent dependent surface water standards for chronic and acute exposure" (page 4-10 and Table 4.2-2). We found this statement to somewhat contradict information presented under the environmental consequences for wildlife section, on page 4-28. Here it states that chemical constituents "may" achieve acute or chronic toxic levels over the life of the Project. In the FEIS, Western should quantify the likelihood of the pond chemistry to be toxic. (See "Methodology and scientific accuracy", 40 CFR 1502.24.) We also note that while Western acknowledges that the brine would or could be toxic, the DEIS goes on to state that "...if birds do utilize the pond, no impacts are anticipated since the water would be of no higher TDS...than seawater." This statement appears to have little scientific basis, and should be removed from the document. In the FEIS, Western should more accurately describe the potential for bird poisoning from contact with the pond, and discuss monitoring and mitigation options. We recommend that you consult with Arizona Game and Fish Department and the U.S. Fish and Wildlife Service on this matter.	See responses to Comments No. 4, 13 and 35.
128.	*Wildlife Surveys*. On page 3-33, of the DEIS "a survey of the proposed Plant site" is mentioned. A reference should be provided for this survey in the FEIS. It is EPA's impression that a very cursory, screening level, inspection has been completed. We strongly recommend that Western work with USFWS in the formal consultation process, and also with the Arizona Game and Fish Department in determining the appropriate level of surveys required, prior to decisions being made (See our comment number 3, under NEPA).	See response to Comment No. 119. Western has completed the consultation process with the U.S. Fish and Wildlife Service. In addition, Western will continue discussions with the Arizona Game and Fish Department and the Bureau of Land Management regarding the need for preconstruction surveys and construction and post construction monitoring. With the exception of surveys and monitoring for the desert tortoise and post construction monitoring of the brine disposal pond, no other surveys are currently envisioned.
129.	*General*. EPA has been working with ADEQ in the technical review associated with the required Prevention of Significant Deterioration (PSD) permit for plant operation. We expect to continue working with ADEQ on this process.	Your comment has been noted.

No.	Comment	Response
130.	*Air Impacts From Proposed Cooling Tower*. Western should note in the FEIS whether the air modeling included modeling PM_{10} emissions from the proposed cooling towers.	The PM_{10} emissions include both the particulate emissions from the stacks and the cooling towers. See the **Final EIS Corrections Table**.
131.	*Construction Air Impacts*. The FEIS should provide estimates of construction-related emissions, whether they would be below the National Ambient Air Quality Standards (NAAQS), and summarize the appropriate and planned mitigation and monitoring procedures.	Please refer to Section 4.3.2.1.5, Construction Emissions that has been added as an Addendum to Chapter 2 of the Final EIS.
132.	*Traditional Cultural Properties*. EPA encourages Western to continue its Government to Government consultation with potentially effected tribes. We are concerned that traditional cultural resources may especially be threatened at the proposed Peacock Substation. The DEIS states (page 4-37) that "the extent to which this site might be impacted, if at all, would depend primarily upon site selection and engineering design." We strongly recommend completion of additional surveys, in concert with Tribal consultation, and avoidance, if at all possible, of these sites. The FEIS should outline the Government to Government consultation process utilized and describe progress made to eliminate and/or reduce any impacts to traditional cultural properties.	See response to Comment No. 119.

No.	Comment	Response
133.	*Programmatic Agreement, Class III Surveys, and Consultations*. Under Mitigation, Table 2.1-4, item 8, the DEIS states that "cultural resources would continue to be considered...in accordance with the programmatic agreement that is being developed in conjunction with preparation of the EIS." In the DEIS, Western should clarify with whom this agreement is being made, and the nature of the agreement. Page 4-34 of the DEIS notes that Class III archaeologic surveys would be completed before final design, and at that point Western would proceed with the Section 106 consultation with SHPO. We recommend that appropriate surveys be completed prior to the FEIS (and commitments be included in the ROD), to ensure appropriate project siting and ensure that cultural or historical resources are avoided as much as possible.	See response to Comment No. 119. Also, Table 2.1-4, Item No. 8 has been corrected. Western will not pursue a programmatic agreement for compliance with the National Historic Preservation Act. Western will abide by the normal consultation process to meet its obligations under the National Historic Preservation Act.
134.	We recommend modification of the Mitigation table, 2.1-4. The listed mitigation is often very general and is not cross-referenced by resource category to be mitigated. In various portions of the DEIS text, Western describes specific project-related mitigation and/or monitoring. We strongly recommend that all important mitigation and monitoring information be presented in a matrix-style table and referenced by resource category. The table should include various mitigation and monitoring requirements of specific permits. In general, EPA recommends that project mitigation be done in the following order of preference: avoidance, minimization, rectification, reduction, and least preferred, compensation (see 40 CFR 1508.20). Additionally, monitoring provisions should be tied to contingency plans, in the event that monitoring detects adverse environmental effects.	Table 2.1-4 has been revised to reflect the resource categories affected by the proposed mitigation. The revised table is included in the Addenda section of the Final EIS. In addition, the table has been updated to reflect current BLM tortoise mitigation requirements.

No.	Comment	Response
135.	*Comparison of Short Term and Long Term Disturbance*. Western describes the short term surface disturbance for the proposed Griffith-McConnico transmission line segment (8 miles) to be 124.7 acres (Table 4.17-1, pg. 4-92). However, Table 2.1-3, on page 2-17, only describes 12 acres of temporary disturbance. These two tables should be made to agree in the FEIS, and clarification provided why so much surface disturbance may occur along the Griffith-McConnico segment. We found table 2.1-3 confusing to read. Additional clarification or simplification of this table should be provided in the FEIS. We also recommend that Western "tie" Table 2.1-3 with Figure 1-1, which breaks down the proposed construction, by providing a letter identification to each proposed segment. The letter identification should be applied to Table 2.1-3, so that the reader may have a better visual feel for potential surface disturbance.	The short-term surface disturbance for the proposed Griffith-McConnico transmission line segment would be about 12 acres as depicted in Table 2.1-3. A correction to Table 4.17-1 has been provided. Table 2.1-3 has been modified to reflect the segment designations on Figure 1.1-1 and included in the Final EIS.
136.	The information regarding seismic events may be incorrect. On page 3-2, Western twice refers to an earthquake of Magnitude 9.9. We are not aware of such a large earthquake in the recent past located anywhere in the region. Assuming use of the Richter Scale (please specify). This information should be corrected or clarified in the FEIS.	See response to Comment No. 102.

COMMENTER	ORGANIZATION	CITY/STATE
William J. Burke	National Park Service, Lake Mead National Recreation Area	Boulder City, NV

137.	One last comment that I did not have the answer to before the official National Park Service comments were mailed to you. On page 3-29, Mohave Desert Tortoise (Threatened). The only critical habitat designated in Arizona for the Mohave Desert Tortoise is in the Grand Wash area of the Arizona Strip, north of the Colorado River. There is no critical habitat for the Mohave Desert Tortoise in the Black Mountains of Arizona.	See response to Comment No. 71.

COMMENTER	ORGANIZATION	CITY/STATE
Earl Havatone	Hualapai Nation, Office of the Chairman	Peach Springs, AZ

No.	Comment	Response
138.	This letter is to provide comments on the Draft Environmental Impact Statement for the Griffith Energy Project in northwestern Arizona. The Hualapai Tribe traditionally occupied the majority of northwestern Arizona prior to establishment of our Reservation in 1883. As such, the area where the Griffith Energy Project is proposed to be located was once the home to many of our people. Our dead are buried there, our rock writings are scattered throughout the area and the area in general is sacred to our people. **We do not want the Griffith Energy Project to desecrate our sacred homelands.** In addition, the Draft EIS does not adequately address Traditional Cultural Properties (TCP's) of the Hualapai Tribe.	Your comment has been noted. Western fully intends to address the Hualapai's traditional cultural resource properties in its decision making process. See response to Comment No. 119.
139.	Furthermore, we feel that the pollution from the emissions has the potential to negatively impact our economic security by increasing regional haze entering Grand Canyon. On the west end of our Reservation the Tribe has an enterprise called Grand Canyon West where tourists are brought to enjoy the beauty of Grand Canyon. We feel that the emissions from the plant will reduce the beauty and attraction of Grand Canyon West and therefore reduce our economic sustainability. This is especially true because we have recently been made aware that Griffith has applied to be allowed to burn oil instead of natural gas.	Please see addendum in Chapter 2 of the Final EIS added to provide an update on regional haze inputs. No fuel other than natural gas will be burned to drive the two gas-fired turbines and the steam turbine.
140.	Not only could the emissions affect tourism at Grand Canyon West, but also the Tribe's river running business. The beauty of Grand Canyon from the river could also significantly decline due to emissions from the plant. Our Tribe depends on these incomes to feed our people and heal our sick. Our air quality is already affected enough from the Mohave generating station in Laughlin, Nevada. Enough electricity is already being generated without creating another source of pollution.	See response to Comment No. 139.

No.	Comment	Response
141.	Furthermore, we feel that consumption of 3,300 gallons of water per minute (or more) will negatively affect springs and water supplies to Kingman and the Hualapai Reservation. How long can you pump that much water before northwestern Arizona goes dry?	See response to Comment No. 126.
142.	We also feel that the proposed brine pond, which has the potential to reach toxic levels, is too hazardous to wildlife and the citizens of Mohave County and the Hualapai Reservation. How will they dispose of toxic waste? Will it be transported by train right through Peach Springs on the Hualapai Reservation? Many species that are sacred to our Tribe such as the Bald Eagle, waterfowl, Golden Eagles and various hawks are known to inhabit or migrate through the project area. We know that individuals of these species will be lost at the pond and also due to collisions with power lines. These losses are unacceptable to the Hualapai Tribe.	See response to Comments No. 4 and 5.
143.	Before European settlers, northwestern Arizona had some of the most spectacular scenery and vistas in the world. With development came eyesores such as transmission lines. Our Reservation and northwestern Arizona, in general, is overcrowded with transmission lines. **We don't want any more!** Our traditional lands have been scarred enough. We do not believe that the need is great enough to justify more transmission lines. We do believe, however, that the true purpose and need of the project is for the project proponents to make a profit while they degrade our environment. **We don't need it!**	Your comment has been noted.
144.	Finally, while we were informed that a public scoping meeting was taking place in Kingman, the Hualapai Tribe deserves a much more formal consultation than was provided. This is especially true considering the potential impacts the project could produce.	Your comment has been noted. Western and Griffith representatives addressed the Hualapai Tribal Council on March 6, 1999 to address Hualapai concerns with the Griffith Energy Project.

COMMENTER	ORGANIZATION	CITY/STATE
Robert L. Arnberger	National Park Service, Grand Canyon National Park	Grand Canyon, AZ

No.	Comment	Response
145.	We have completed our review of the PSD application for the Griffith Energy Project proposed near Kingman, Arizona. The facility would be located approximately 95 kilometers south-southwest of Class I Grand Canyon National Park, and 40 kilometers east of the closest boundary of Class II Lake Mead National Recreation Area. We understand that the proposed project consists of two natural gas-fired, combined cycle turbines, and that proposed emissions are as follows: 376 tons per year (TPY) of nitrogen oxides (NO_X), 247 TPY of particulate matter (PM_{10}), 50 TPY of sulfur dioxide (SO_2), 308 TPY of volatile organic compounds, and 863 TPY of carbon monoxide. Our comments on Griffith's best available control technology (BACT) analysis and the assessment of air quality impacts at the National Park Service areas follow. We commend Griffith for its choice of controlling NO_X emissions from the turbines by using natural gas as the only fuel, and by using Dry Low-NO_X combustors with Selective Catalytic Reduction. We agree that the target NO_X emission limit of 4.5 ppm represents BACT for this application. The proposed PM_{10} emissions appear unusually high for natural gas firing. We suggest Griffith verify the accuracy of the proposed PM_{10} emissions.	Western received a copy of this comment directed to the New Source Unit Manager, Arizona Department of Environmental Quality. The comment is based on NPS review of the PSD application for the Griffith Energy Project rather than the Draft EIS. Western has included the comment in the Final EIS because the comment is related to other comments on the Draft EIS regarding air emissions and provides supplemental information.
146.	The modeling results contained in the application indicate that the impacts of NO_X, SO_2, and PM_{10} at Grand Canyon National Park are below the Class I increment significance levels for all averaging periods. Therefore, a cumulative Class I increment analysis is not necessary.	See response to Comment No. 145.

No.	Comment	Response
147.	In our April 10, 1998, letter to Donna Lucchese of your staff, and in subsequent conversations with Ms. Lucchese, we asked that Griffith perform deposition and visibility analyses for both Grand Canyon National Park and Lake Mead National Recreation Area. We were copied on Ms. Lucchese's June 9, 1998, letter to Griffith's consultant that gave a detailed description of the required analyses for the National Park Service areas. Regardless, these analyses were not performed for Lake Mead National Recreation Area. We ask that Griffith perform the analyses so that we can assess potential impacts at the area.	See response to Comment No. 145.
148.	The calculated deposition amounts for Federal areas reported in Table 19.3-2 of the application are incorrect. It appears that Griffith made a mistake when performing the last step of the calculation. The correct modeled increases in annual nitrate and sulfate deposition from the Griffith facility at Grand Canyon National Park are 0.30 kg/ha/yr and 0.003 kg/ha/yr, respectively. We don not expect Griffith to substantially contribute to deposition at the park.	See response to Comment No. 145.
149.	The regional haze analysis for Grand Canyon National Park was performed using the screening technique from the Environmental Protection Agency (EPA) document *Interagency Workgroup on Air Quality Modeling (IWAQM) Phase 1 Report:* Interim Recommendations for Modeling Long Range Transport and Impacts on Regional Visibility (April 1993). The results reported in the application indicate 17 days out of the 545 modeled had a greater than 5 percent change in extinction. Two of the 17 days had modeled impacts greater than a 10 percent change in extinction. The National Park Service considers a 5 percent change the threshold above which there is a significant impact on visibility. Our adverse impact determinations are based on the magnitude, frequency, and duration of impacts. The frequency and magnitude of occurrences reported in the application is adverse.	See response to Comment No. 145.

No.	Comment	Response
150.	There are several steps for addressing the projects' potential visibility problems at Grand Canyon National Park. Since PM_{10} emissions figure significantly in the regional haze calculations, the first step would be to re-examine the proposed PM_{10} emission rate. If Griffith determines that a lower PM_{10} emission rate is appropriate, they should re-calculate the regional haze numbers to determine if there is a reduction in the number of days with visibility impacts. The second step would be to perform a refined visibility analysis for the Griffith facility alone using the EPA CALPUFF modeling system. The CALPUFF modeling system can more accurately calculate the chemistry involved in the formation of the ammonium nitrate and ammonium sulfate particles than the more conservative IWAQM screening technique that uses the EPA ISCST model. Therefore, the CALPUFF modeling system may indicate a reduction in the frequency and/or magnitude of the visibility impacts at Grand Canyon National Park. The third step, if necessary, would be to perform a cumulative visibility analysis.	See response to Comment No. 145.
151.	National Park Service policy is that, if a source's impact is greater than a 5 percent change in extinction, the source has the option of performing a cumulative regional haze analysis and demonstrating that the impact from all increment-consuming sources is less than a 10 percent change in extinction. This cumulative visibility impact analysis can only be performed using the CALPUFF modeling system. We suggest Griffith contact John Notar of the National Park Service Air Resources Division at (303) 969-2079 for further guidance on the visibility analyses.	Your comment has been noted.

COMMENTER	ORGANIZATION	CITY/STATE
Richard Beebe		Tracy, CA

No.	Comment	Response
152.	I will assume Western's EIS is limited in scope to the routing of the 230-kV lines. I have no issues with these routings. I do have a couple concerns relating to the powerplant, itself. Regarding the water use: I find the lowering of the Sacramento Valley water table by 100+ ft over 40 years to be a real concern, especially in an arid environment. (Reminds me of the LADWP vs. Owens Valley groundwater pumping conflict in Eastern California.) 1. The distance to the Colorado River prevents its use - why not move the plant's proposed site? (closer to, say, Davis Dam, where access to the 230-kV lines remain and the river water is within reach?)	See responses to Comments No. 34 and 118a for siting information.
153.	2. Can the plant's cooling tower design be reworked to reduce or eliminate the wasting of the water used for cooling? (create a "closed system" for water use: minimize the need for water, beyond a minimal make-up need?)	See response to Comment No. 118 for information on cooling alternatives.
154.	3. Can the Griffith plant operators work with local cities to create a water-reuse system for their wastewater effluent, for a portion of the plant water make-up - the RO/DI system will further treat the water for steam, and their cooling water system will have chemical treatment, as well. At least a portion of this 3,000+ to 5,300+ AF/yr groundwater pumped may be eliminated: an environmental benefit, and good AN A-76 TEAM (TEAM) WAS CHARTERED TO COMPLETE A STUDY ON WESTER for the plant operators. (In my local area, a couple of cities are constructing RO/UF wastewater reuse facilities, based upon Orange County, California's Plant 21.)	Water reuse was considered in two different ways for the Griffith Project. First, water from Kingman's waste water treatment plant was considered as a potential source of water for the project but was not viable because of volume and quality limitations. Secondly, reuse of waste water from the Griffith Plant was considered but became not viable when it was decided to recycle the water several times in the plant to minimize water consumption. The resulting quality of the discharged water would be unsuitable for other uses as a result.

No.	Comment	Response
155.	Regarding plant size: The Executive Summary lists the plant size as 520 MW; while the update notes a max. capacity of 650 MW. How big a plant is really being intended? Will we see a larger proposal in the Final EIS/EIR? I don't know whether my concerns will be heard, but they are at least conveyed, and hopefully received. Thank-you for an opportunity to express my interest. I look forward to further comments, if allowed, and opportunities to contribute input in the future.	The proposed power plant is a baseload 520 megawatt (MW), natural gas-fired, combined cycle electrical, generating facility that has the capacity of generating as much as 650 MW when demand requires peak firing capacity.

SUBSTANTIVE PUBLIC HEARING COMMENTS AND AGENCY RESPONSES

COMMENTER	ORGANIZATION	CITY/STATE
Voice From Audience		

A.	Ideally our comments are made to them [Western representatives], not to Griffith Power Plant, correct, people? Because that's what this hearing is about, for them to hear our comments because they make the decision whether or not this is passed.	Western's decision is whether or not to approve an interconnection with the Parker-Davis and Pacific Northwest-Pacific Southwest Intertie transmission systems. Western's decision making process will consider the environmental impacts of all components of the Griffith Energy Project, but Western does not have any jurisdiction over the Griffith power plant siting and design. Also, see response to Comment No. 115.

COMMENTER	ORGANIZATION	CITY/STATE
Frank Puglia		Kingman, AZ

No.	Comment	Response
B.	The first thing I'd like to point out is that in the environmental impact analysis that was done here in this study, they are telling us that there's going to be a brine disposal pond located on the grounds of the facility. This pond, from the limited amount of understanding I have, is used to facilitate the operation of the plant. And included in the soup that we're going to have in this pond are items such as barium, cadmium, chromium, copper, mercury, selenium, silver, and zinc. And they state here, for the record, that there's "potential contamination hazard from storage and use of fuels, lubricants and other fluids during construction and operation," so there is a potential for contamination.	See responses to Comments No. 4, 13 and 35.
C.	So the first thing I want to point out is that we're going to have a pond out there that's going to contain chemicals in it. Now, this pond could possibly leach into our water table eventually. Now, look at what's happened in Las Vegas. There's a plant in Las Vegas that's been there for -- been gone for 10 years or 15, 20 years, and we just now have discovered that there's perchlorate in Lake Mead. It filtered down through the washes from the rains, and it made its way down there to Lake Mead, and now we got fish that have low sperm counts because of it, among other things. It is identified as a potential cancer causing agent, so -- the perchlorate.	See responses to Comments No. 4, 13, and 35.

No.	Comment	Response
D.	Now, these chemicals, I guess I should call them, that they're showing here also pose a threat to wildlife, because what happens is that it looks like water to these birds and animals, and they go up to it and they drink it. It might even taste like water. It might be fenced in, so you may only have the birds flying into it. The point is that we have a pond out there that needs -- we've got chemicals in it and that needs to be addressed.	See response to Comment No. 4.
E.	The number one thing that I think needs to be addressed is that this chemical pond needs to be properly lined, properly installed, and whatever agencies are in place in order to ensure that the company that's installing the plant follows the regulations that the federal government has laid out in construction of that pond.	See response to Comment No. 35.
F.	So my number one thing is, it's important that if this plant is going to be here, which it probably is, folks, then we -- what we need to do is make sure that everything is constructed properly, and we need to make sure that things -- everything is thought of.	See response to Comment No. 35.
G.	For example, let's talk about possibly making this a closed pond so that the waterfowl will not get into the pond and get contaminated. I don't know anything about technology for those power plants, but I guarantee you that anything's possible; and if they look into it, it might be feasible. So that's one point that I'd like to make for the record, is that I oppose the pond with the chemicals in it.	See responses to Comments No. 4 and 13.

No.	Comment	Response
H.	The next thing I'm going to talk about here is more -- in the environmental impact analysis. I'll read it verbatim right here, in case some of you haven't seen this. They're saying that the "loss of 65 acres of habitat would not affect the viability of any species." Well, I don't know who they are and how they can determine that it's not going to affect the viability of any species. It's going to affect some species somewhere, okay, we just don't know what until 20 years from now.	Your comment has been noted. The loss of 65 acres is not anticipated to adversely impact the viability of any species based on the following considerations. First, habitats that would be impacted are not considered significant within the general area. Second, these habitats are common through the general area and the loss of 65 acres is not considered significant. Lastly, all long-term disturbances within BLM designated tortoise habitats on BLM lands will be compensated for with either land or funds by the proponent.
I.	Chemical constituents of wastewater in the brine pond may achieve acute or chronic toxic levels during the plant's life, creating a potential mortality of waterfowl and other birds.	See response to Comment No. 4.
J.	Unacceptable. I don't agree with that. I don't think that we should have a pond that's going to be in the open for our wildlife to get into. So I'd like to make it a point that you put this down in the record that we need to look into the possibility of having a closed system there, if it's feasible.	Covering the pond would be considered in consultation with AGFD if bird mortality problems occur. See response to Comment No. 4.

No.	Comment	Response
K.	Let me just scoot over here to page 3-2, if I can find that. Here we go. They're talking about geologic hazards here. We have a pond that's got a chemical soup in it, and we've got an area here in the county that they're going to put this pond that does have a potential for earthquakes. All right. Now, when earthquakes happen, the ground moves, things slosh around, stuff leaks, things like that. I just want to make sure that they are putting together some kind of a program here to protect our environment, our water, our aquifer from seepage from this pond as a result of earthquakes, because what they're saying here is not much.	See response to Comment No. 35.
L.	They're saying, basically, that there is a potential for earthquakes, but they're not talking about what they're doing to protect us from the chemical soup in case there is an earthquake.	See response to Comment No. 35.
M.	I think that everybody in this room needs to be concerned about it, whether or not they live in a close proximity to that plant or not, because that aquifer -- there's a map somewhere in here that I saw of that aquifer. That aquifer is huge, and it covers a good part of the county. It appears as though it actually goes down to Lake Havasu. Now, I might be mistaken about that, but according to that map, it looks like it does. So we have the potential for a major disaster here in 20 to 30 years if we don't make sure that these people who are building this plant do it right.	Your comment has been noted.
N.	All right. I'm not against the plant, and I'm not against growth. I think we need it, I really do.	Your comment has been noted.

No.	Comment	Response
O.	I think that it's going to be a positive thing for this county, but I also think that we cannot sit by and let these entities build these plants in our backyard without a watchdog eye on them, making sure they follow every single rule. If they can cut corners and save money, they're going to do it. I guarantee you, if they can get away with it, they're going to do it. People have gone to jail for that in the past, and they're going to continue to do it.	Your comment has been noted.
P.	So my opinion is, you know, we're not going to be able to stop this plant from coming in, so if we can't stop the plant from coming in, let's do everything we can to make sure that this plant is going to be safe and it's -- and that our elected officials are going to do everything in their power to put programs into place to make sure that inspections are done and -- and that the plant is being constructed properly, and then once the plant is on-line, that ongoing supervision is in place, because we don't need another generating station out here that throws 2,000 tons of pollutants into the air. This throws 650 tons.	Your comment has been noted.
Q.	If Don Van Brunt is correct, he stated earlier in a conversation that we had in this room, that if we parked two semis -- is it two semis, Don? Three semi trucks out at the Griffith interchange and left them idling out there -- Left them running, that would be about the amount of pollution that this plant is going to produce. Now, I don't know where Don got that from. I don't know if that's a fact or not, but I'll tell you this, it's hard for me to believe, okay, very hard for me to believe.	In terms of amount of pollutants, three semi-tractors running at idle would emit approximately 4.2 tons/year of CO and 1.1 tons/year of NO_2. The proposed Griffith Energy power plant will emit 872 tons/year of CO and 391 tons/year of NO_2 as reported in the air quality permit application filed recently with the Arizona Department of Environmental Quality. In terms of concentrations of pollutants being emitted, an idling semi-tractor would produce an emission stream containing about 25 parts per million (ppm) of CO and 3 ppm of NO_X. In comparison, the concentrations of pollutants that would be emitted by the power plant would be approximately 20 ppm CO and 4.5 ppm NO_X.

COMMENTER	ORGANIZATION	CITY/STATE
Tom Bowman		

No.	Comment	Response
R.	But I think the people of Kingman and the area here, Havasu, Bullhead, and all of our area, definitely needs this extra power plant. It doesn't cost us that much. It don't cost us any money. And if we put another plant in here, which will cost us at least a hundred million dollars, our electric bill will zoom up to 15 percent higher than it is right now, and that's what I'm against.	Because the Project will be a merchant power plant selling wholesale power into the regional market and will not be tied directly into the local power supply, it will not have an effect on local utility rates.

COMMENTER	ORGANIZATION	CITY/STATE
Dean Barlow		

S.	My concern is the reported air pollution levels which will be generated, first by the Griffith Project and then by other plants which are proposed for this area. While we are assured that 1900 tons of air pollution per year will, quote, pose no health hazard, according to the News-Herald in Lake Havasu, and in any case will blow into the mountains anyway, I question both of these statements. According to the newspaper, a hundred tons is considered high level, 1900 tons certainly is a very significant amount. As for it all blowing into the mountains, I just don't believe that will be the case. Lake Havasu City will certainly get its share.	The U.S. Environmental Protection Agency and the State of Arizona have established ambient levels of pollutant concentrations (National Ambient Air Quality Standards (NAAQS)) that would be considerable harmful to the health and safety of the public with an adequate degree of safety. The annual emissions of the proposed Griffith Plant would be 375 tons of nitrogen dioxide, 862 tons of carbon monoxide, 50 tons of sulfur dioxide, 247 tons of inhalable particulates, 308 tons of volatile organic compounds, and 44 tons of formaldehyde. The air quality analysis presented in the Draft EIS and the PSD Permit Application indicated that the maximum levels of pollutants, compared to the NAAQS, that would be exposed to humans would be: nitrogen dioxide - 10.85 percent; carbon monoxide - 6.4 percent; sulfur dioxide - 0.5 percent. So while the annual total of 1900 tons seems high to the layman, the air quality analysis demonstrated that the levels exposed to humans would be less than 10 percent of those levels established to protect the public health and welfare.
T.	Turning this area into a pollution producing industrial complex is not my idea of progress. I would hope that we are not ready to trade a few temporary manufacturing jobs for a quality of life which is the envy of everyone.	Your comment has been noted.

COMMENTER	ORGANIZATION	CITY/STATE
John L. Bridges		

No.	Comment	Response
U.	And if we stopped growth when I got here in 1965, what you would see is no -- no housing, no project any farther than Detroit. You wouldn't see anything farther than Holiday Inn, except for Butler, and that would be the birdlands. You wouldn't see anything in Golden Valley, except for five water fields that Duval put in and about, oh, 30 to 40 houses out there. People move into Kingman. They need a place to work. They need a place to grow.	Your comment has been noted.

COMMENTER	ORGANIZATION	CITY/STATE
Donna A. Garner		

V.	My concern is that we are putting so much time and energy into this power plant when there are other alternative and recyclable sources of energy available.	See responses to Comments No. 8 and 12.
W.	And I quote from 3-7, it says, "Natural annual recharge of the aquifer has been estimated at 4,000 acre feet per year with discharge to the Colorado River west of Yucca equaling recharge."	Your comment has been noted.

No.	Comment	Response
X.	And then 2-31 I quote, "Annual withdrawal of 3,600 -- 3,064 to 5,323 acre feet of water from the Sacramento Valley Aquifer" will be used by the Griffith Energy Plant, "lowering the water table 109 feet over 40 years." Exactly how deep is that water table? It takes generations to recharge a water table like that. And yet, maybe it's a good thing for an immediate source of power. The desert wasn't meant to support vast populations, and it's got a limited resource supply to draw from. Think about the cactus and the different desert plants that grow here. They do so on minimal water. The Indians and the people that roamed this land for generations made do with very little, and we're trying to suck it all dry. We need the power plant, but it needs to be in a different place, where there is recyclable water supply more readily available.	See response to Comment No. 126.

COMMENTER	ORGANIZATION	CITY/STATE
Jack Ehrhardt		

Y.	What this plant represents is not sustainable environmental energy. It's not green, renewable.	See responses to Comments No. 8 and 12.
Z.	You don't put an energy plant in the desert. And this is what I'm addressing to your draft. Where is your logic, your intent in rationalizing the pure physics of putting something that drains the aquifer and then putting something in an area where there's no carbon sink rejuvenation.	See response to Comment No. 12. Emissions to the atmosphere are to be controlled by Best Available Control Technology and the plant would be a zero discharge and permanent waste confinement facility.
AA.	There is no filtration system to absorb the pollutants that come out of this plant.	See Comment No. 145.

No.	Comment	Response
BB.	And I really wish that there was some ratio that you gentlemen could take in giving us that analysis, putting something like this in the desert that doesn't belong here.	Environmental Justice is discussed in Section 4.14 of the DEIS. Also see responses to Comments No. 13, 35, and 126 for responses to water issues.
CC.	Making a statement that is pure and simple, we should have solar and we should have wind energy being used here, but, see, it's not as profitable for certain people, so it doesn't come. These are the hard cold facts.	See responses to Comments No. 8 and 12.
DD.	The other thing that you gentlemen don't point out, what people don't realize and the public needs to be aware of, is a comment called comparative risk. X amount of people in Mohave County -- and you're not going to find this in the report, because you guys aren't required to put it in, but based on emissions that come from plants, the X amount of tons of formaldehyde and chemical emissions that are ingested by people, breathed into their lungs, causes a certain amount of illnesses and sicknesses and deaths. But those comparative risks to the allowance of this type of industry -- and this is a fossil fuel industry, true, it's slated the cleanest, but we don't get to see that. Do you guys have anything that you can provide us that will be the increase from this source pollution plant of the illnesses that will be increased in this community?	The National Ambient Air Quality Standards (NAAQS) that must be met by this plant and other emission sources were developed specifically "to protect the public health and welfare with an adequate degree of safety." Therefore, because the plant would meet the NAAQS standards, an analysis of health effects is not needed.

COMMENTER	ORGANIZATION	CITY/STATE
Kerry Christensen		

No.	Comment	Response
EE.	Let me start by saying that I believe that Mohave County is dependent a lot on tourism for economic development. I think that the U.S. government spent millions of dollars on studying on how regional haze affects recreational and experience in the Grand Canyon. I believe that the air emissions from this plant will only add to that air pollution that's going to decrease the attractiveness of the Grand Canyon to regional tourists. Those tourists come through Mohave county, they spend their money in Kingman buying gasoline and food, and I think, overall, air emission, air pollution is bad for Mohave County.	See response to Comment No. 139.
FF.	I also believe that the transmission lines associated with this plant reduce the aesthetic value and property values in Mohave County.	Since the new transmission line components for the Griffith Energy Project would be parallel and adjacent to existing Davis-Prescott transmission line or developed within a previously approved and permitted rights-of-way (Citizen's Utilities), the proposed project would have a minimal effect on property values. All transmission line components would be developed within designated utility corridors. Aesthetic values have been addressed as reflected in the Draft and Final EIS.
GG.	I'm tired of seeing transmission lines scarring this land, interrupting radio transmissions, and generally degrading the environment.	Your comment has been noted.

No.	Comment	Response
HH.	Wouldn't -- and I'm sure there's nobody that can address it, but wouldn't the proposed Navajo Transmission Project, which would bring a large amount of electricity through Mohave County -- wouldn't that provide the necessary electricity instead of this for-profit-degrade-the-environment proposition?	See response to Comment No. 115 which addresses Western's needs to respond to an application for interconnection from a merchant plant. The primary purpose and need for the Navajo Transmission Line Project is to relieve the constraints on the transmission of electricity west from the Four Corners are to the Desert Southwest. Currently, more energy can be imported from the north on existing transmission lines into the Four Corners area than is capable of being exported with the existing transmission system to the west of Four Corners. This transmission bottleneck essentially precludes economic sales of electricity to markets in south-central Arizona, Nevada, and southern California for which an estimate of future load growth is more than 10,000 MW. The NTP also would improve operational flexibility and reliability of the extra-high-voltage transmission system, allow increased economical power transfers, sales, and purchases in the Rocky Mountain, Four Corners, and Desert Southwest regions, and improve economic conditions of the Navajo Nation. The NTP, if constructed, would benefit the Griffith Energy Project and other proposed merchant plants.
II.	I also agree that this is a desert, that pumping 3,300 gallons of water per minute is outrageous -- -- that reducing the water table 109 feet in 40 years, which is probably a very conservative estimate, is outrageous.	See responses to Comments No. 48, 52, 112 and 126.
JJ.	I'm along with Frank on the brine pond. It has a potential to produce toxic waste. What's going to happen to that toxic waste? Is it going to be put on a train and transported through your neighborhoods, through our communities? What -- you know, what is the disposal mechanism for that toxic waste?	See response to Comment No. 4.
KK.	Unless you fence that, you are going to have loss of significant numbers of species, not only at the brine pond but also through collisions with transmission line -- transmission lines and power poles.	See responses to Comments No. 4 and 5.

No.	Comment	Response
LL.	I do not believe that the draft EIS -- the purpose and need is well enough demonstrated that we actually need that energy.	See response to Comment No. 115 and the Purpose and Need Addendum in Chapter 2 of the Final EIS.
COMMENTER	**ORGANIZATION**	**CITY/STATE**
Joan O'Connor		
MM.	I live out there. I sat down and I figured out how much water they're going to suck out. First of all, it was 1900 gallons, I sat in this room and heard it. Then it was 3300. Joe Hart stood up here and said it was 6,000. You figure it out in your own head how much it's going to come to; 3,000, 3300 is 24 million gallons a year.	See responses to Comments No. 48, 52, 112 and 126.
NN.	How about the birds? The birds go and drink that stuff.	See response to Comment No. 4.
OO.	What happens if that stuff soaks back down into the ground? We're not going to get any benefit from that thing. You know what we use? A generator.	See response to Comment No. 35.
PP.	We use solar. What's wrong with solar?	See responses to Comment Nos. 8 and 12.
QQ.	What happens to the rock and sand when they pull it all out? What happens? What happens to the volcanos?	Rock and/or sand removal would be limited to the area of excavation beneath the proposed brine disposal pond. The excavated earthen materials would be used as fill in site development. Rock and sand removal at the plant site should not influence any possible volcanic activity in the area.
COMMENTER	**ORGANIZATION**	**CITY/STATE**
Bill Garner		
RR.	When this power plant is put in, there's going to be a lot more factories, a lot more houses, and a lot more water sucked out of the ground. And what's the immediate need of this power plant?	See response to Comment No. 2.